



George Landis Arboretum

NEWSLETTER

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THE BRISTLE-CONE PINE AT THE LANDIS ARBORETUM

The Bristle-cone Pine at the arboretum was set in the field in the spring of 1953, two years after the founding of the arboretum.

At that time very little was known about the species, and nothing accurate about the species' longevity. I had seen a specimen of about head height in the private arboretum of the late State Senator Desmond at Newburgh, New York. It was labeled *Pinus Balfouriana*, the so-called Fox-tail Pine, between which and *Pinus aristata*, there has been, and still is, much confusion, whether they are separate species, or one a variety of the other, or both merely local variations of the same species.

I saw only that it was a pine different in appearance from any pine I had ever seen before, and was anxious to procure one for the arboretum. I could not find it listed in a single nursery catalog. I wrote to Senator Desmond, asking where he had gotten the plant. He referred me to the W.W. Wilmore Nurseries, Denver, Colorado. Wilmore wrote that he could furnish me a plant but that it would have to be sent by truck, an expensive shipping. Wilmore remarked, "This pine is considered a status symbol for yards in Denver and Colorado Springs."

I ordered the tree, and it came about two weeks later. It was about four feet tall, but it had been carried across country in the back of an open truck, without cover, and the top foot was burned almost brown. I set it out in its present spot. In a month it had shed the browned needles off of the top, and one of the lower branches had taken over as a leader. It flourished well that summer, and has flourished consistently in the following thirty years. The location is rocky and dry, and I think this is the kind of location it needs. A few years ago, there was a young specimen at the Durand-Eastman Park in Rochester N.Y., but it was in a semi-wet location, and at the time I saw it, the tree was growing badly.

Not trained, and left to its own inclination, the arboretum's Bristle-cone Pine is now a sprawling multiple-stemmed tree. At the ground it has a trunk one foot in diameter. At about one foot from the ground, two stems branch off at an upward angle, and at about sixteen inches from the ground there are two other stems. All of these multiple stems are now four inches in diameter at head height. The whole tree is a little over twenty feet in height, and has a branch spread twenty-one feet in diameter, dense to the ground.

The long, curving branchlets, clothed with short, dense, dark-green needles, make the branch structure of the tree at this age little visible. The needles are dotted with white

resin dots, which supposedly are the distinguishing mark between *Pinus Balfouriana* and *P. aristata*, and are often mistaken for some sort of disease or scale. Other than this there seems to be little difference between the two.

Now that its longevity has brought it into prominence, I have hoped to read of more careful observation of the various stands of each, whether the two are actually localized, or whether the variations run through all the stands haphazardly.

It has been suspected, even in the first half of the century, that the Bristle-cone Pine, a high mountain tree, often distorted with age, might be a species as old as the redwoods and giant sequoias of California. It remained for actual proof until a tree in one of the preserves was cut down, for that very purpose, and proved to be 4,800 years old. It is thought now that some of the trees in the preserves may easily be over 5,000 years old. Therefore, it seems to have among its populations, the oldest single living plant on earth, the oldest redwood recorded being about 3,800 years old.

The only contender for longevity is a lowly sub-shrub, the Box Huckleberry (*Gaylussacia brachyera*), a species of the northern Appalachians from Pennsylvania through Virginia to Kentucky. This was introduced into cultivation in 1896, but all native stands were believed lost until a few years ago, when a few were found. These consist of extensive spreading single stands, each one seemingly having spread from a single center plant by the constant yearly advance of underground suckers. By estimating the present advance of each stand in a year, it has been figured that the age of some of the stands may approach 5,000 years. All this depends upon the advance being steady, and more or less equal yearly over that span of time, nothing as dependable as the yearly growth rings on the 4,800 year old *Pinus aristata*.

There are examples of the Box Huckleberry in the arboretum, both in the rhododendron section and in the Quarry Rock Garden.

The Bristle-cone Pine is undoubtedly an interesting-looking tree. According to the latest edition of Bean "Cultivated Trees and Shrubs Hardy in the British Isles," the tree can hold its needles up to twenty years before shedding them. The oldest to which we can count back on our trees seems to be eight or nine years, even this is a record among the arboretum's pines. It blossoms very late, almost at the end of June, and for several years had only male flowers one year and female flowers the next. But in the last three years it has produced both on the same year, and we have a few seeded cones, but the seeds have proven unviable, and have not germinated, as is often true of seeds of young conifers in their first years of fruiting. The female flowers are very pretty, cerise red, on the tips of the long branches, often at head height.

As an attractive horticultural specimen here it seems to have one liability. The long extended branches become over-weighted by a wet snow of late spring or early fall, and if not afterwards tied back up, do not regain their proper level, and occasionally one breaks. This may be true only in our climate, for we find the same trouble with the flexible leader of the Japanese Umbrella Pine (*Sciadepitys verticillata*), which often becomes bent over by such snows and either breaks off or has to be straightened by being tied up from a near higher tree.

The Bristle-cone Pine is one of the prize trees of our collection. It is interesting to speculate into the future, and wonder if, say a thousand years from now, it may still be standing, the last relic of a George Landis Arboretum, then long forgotten. -
Fred Lape



TRUSTEE NEWS

James Bates, Professor of Plant Science at the State University of New York at Cobleskill, was elected a trustee at the 1983 annual meeting of the Board of trustees. Professor Bates teaches tree maintenance and botany at the Cobleskill college. In each of the last several years he has given two or more of the Saturday programs in the summer series sponsored by the arboretum.

Kenneth DeKay, who was a trustee of the arboretum from 1966 to 1980, and secretary of the board for several of those years, has agreed to the request of the arboretum's board of trustees that he complete the unexpired portion of the term of the late Maynard Loux and assume Maynard's duties as secretary of the board. Mr. DeKay was a colleague of both George Landis and Maynard Loux in the School of Management at R.P.I.



FRIENDS STEERING COMMITTEE NEWS

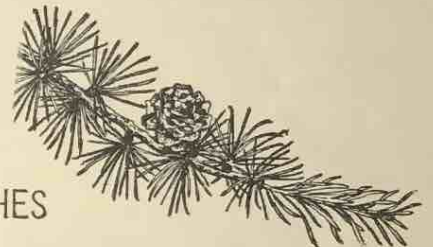
Sale of plants at the Rare Plant Sale netted \$855.00 for the arboretum's general fund. In addition, the Friends earned \$111.51 from the sale of food and beverages, \$112.00 from the sale of T-shirts, and \$52.50 from the sale of stationery. At a recent meeting, the Friends' Steering Committee agreed to be responsible for coordinating the 1984 Rare Plant Sale, with the cooperation of the arboretum staff. The committee has begun preparation to acquire an even wider range of plant material, and to grow on and maintain an increasing inventory of both native non-native species.

BULB SALE

The Steering Committee has purchased about 300 bulbs to resell at the September 17 Gardener's Workshop. The success of the sale will determine if reduced-cost bulb purchases may become an annual project for the Friends.

The following bulbs will be available for sale: Darwin tulips 'Golden Oxford' and 'Big Chief'; Triumphs 'Apricot Beauty' and 'White Dream'; a Greigii collection in mixed colors; Fosterana 'Yellow Emperor'. And, Iris 'Danfordiae'; Anemone blanda mixed; and a narcissis mixture for naturalizing.

A PSEUDO-LARCH AND OTHER LARCHES



One of the treasures of the George Landis Arboretum is a tall tree, glorious about mid-October with its fringed branches pure gold before it drops this year's needles, so long, curved, and graceful since spring. The Golden Larch, *Pseudolarix amabilis* grows in the upper left hand corner of the arboretum, accompanied by other unusual conifers. "Lovely, gentle and kind" gives it the Latin name *amabilis*. This "false larch" comes from China and may be grown on most soils except limestone.

In his book "A Garden of Trees and Shrubs" Mr. Lape says, "To look down at a growing branch is a revelation in plant form; no other conifer shows quite such perfection. In autumn it is a brighter gold than the true larches; for a few days each year those here are the show pieces of the Arboretum."

It was planted here in 1955 as a young tree, now grown it has never yet fruited. Having once seen a fruiting branch at a Swarthmore garden show, exquisite in shape and coloring, I can hardly wait each year to see if this one might form cones at last.

Other larches in the arboretum are a joy in spring when the new, delicate needles are in clusters of tenderest green. "If we have no late frost," Mr. Lape says, "the little cerise-colored female flowers in April are one of the joys of the year." not always that strong pink, sometimes they are orangy, or even purple. This depends on the *Larix* variety, whether European, Japanese, Siberian, or just our local tamarack, *Larix laricina* (which means just "a larch that looks like a larch"). At first sight these small cones startle as they appear on the graceful branches. As they often stay all winter on the tree, they hold snow, giving a lacy effect.

Any interested person can find larches, labelled, at the top of the path leading to the rhododendron section of the arboretum, going up from the parking area. European and Japanese, tall and old, stand across from the entrance to the rhododendrons. Others can be found inside the upper entrance to the arboretum in a group of conifers left of the entrance. - Merrill Bousman

Publishing deadlines are the first of February, May, August, and November. You may write or phone me at the address below.

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