Liquid Sunshine

Newsletter of the Marsh Botanical Garden
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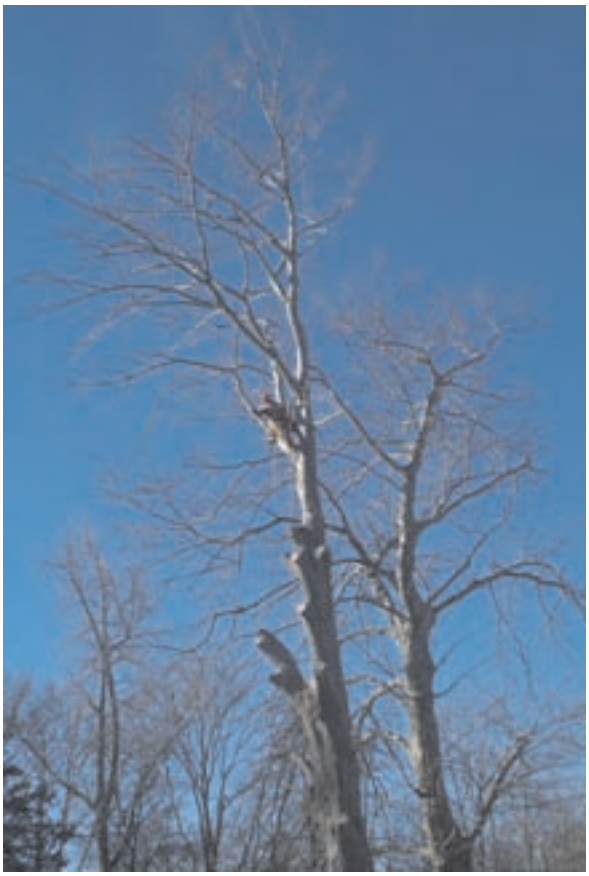
Welcome Back

We are beginning a second year of Liquid Sunshine, the newsletter of the Marsh Botanical Gardens. Although it's been a while since our last newsletter, be rest assured that we have not stopped our efforts here at Marsh Gardens. We have collectively lived through an old-fashioned New England winter, and the gardens seem to have come through with flying colors. The heating systems in the greenhouses held up, partly because of our efforts in purchasing back-up propane heaters for the season. Plants have not started to grow much in the garden, so it will be hard to ascertain for some time if the more tender items made it, but I have every reason to think that losses will be minimal despite temperatures in the teens-below-zero-Fahrenheit. We look forward to some of the bulbs emerging that were planted last fall.

Goodbye to Old Friends

We are sad to report the loss of two Copper Beeches (Fagus sylvatica var. purpurea) in the central part of the garden. These two Beeches had been declining badly for some time, and in the short time since I've been here, about a half dozen large scaffold limbs came down. This is hard on the landscape beneath, but especially catastrophic for anyone walking beneath these giants After some discussion, we decided to remove the trees before any injury was done, and to replant as soon as we could.



Aerial work being done by climber for Care of Trees, Inc. The limbs were lowered and put into a chipper to minimize damage to the plants and grounds below. Both trees were felled over two days, and logs were hauled away the following week. Photo: Eric Larson

Liquid Sunshine is a publication of the Marsh Botanical Garden at Yale University. The title comes from a common nickname for rain, because we only have time to write on rainy days.

Marsh Garden extends from Prospect Street to our office on the corner of Hillside Place and Mansfield Street. The Garden is open to the public and we welcome you to visit anytime.

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Manager	*Eric Larson*
Horticulturist	*David Garinger*
Steering Committee	*Mark Ashton, Mary Helen Goldsmith, Michael Donoghue, Timothy Nelson*
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After the trees were taken down, a count of the rings found that the ages of the two old denizens were between a hundred and a hundred and twenty years. The heart-wood of both trees was riddled with the mycelia of an unidentified fungus, rendering the wood punky and light, almost like balsa wood.

At Haverford College, where I spent fifteen years as supervisor of the Grounds Crew, I worked hard to help develop a plan to replace aging trees BEFORE they declined to the point of being hazardous. The idea is to under-plant senescent trees with young plants of the same species, creating a small grove within sight of the larger grandparent. While this system might not translate directly to the Marsh Botanical Gardens, the lesson has always been for me that the loss of the incredible bio-mass of one large tree is not off-set by planting one tree in its place, but several.

As well, I learned over the years, and independent research bears me out, that replanting a small specimen is much preferable to planting a huge tree. The larger the transplant, the more the root zone is compromised in the process of transplanting. Although it makes a splash when the donors, dignitaries and doctors cut the ribbon, the large tree often takes years to recover. A smaller tree, planted properly, which is much easier to do for a small tree, will outperform the larger transplant, and often catch up to and surpass it in a very short span of time.

We have already located a donor for the trees we will be planting in that area, and we have come down to a short list of species. We are proud to announce that the **School of Forestry Class of 2004** has agreed to give to Marsh Gardens a sum of money to be used to replace those wonderful Beeches, as well as purchase a bench to be placed within the grove. This gracious donation is emblematic of the close ties that Marsh Gardens and the School of Forestry have been working towards in the last year. Our appreciation cannot be underscored enough for this gift. May the class be back often to visit their donation, and may their children and children's children remember what a gift a tree is.

An Inaugural Lab…

We have been working closely with several professors, providing plants, expertise and in one case, for the first time at Marsh Gardens, a space for a lab to meet. Dianella Howarth teaches an EEB class called Plant Diversity and Ecology, which takes the student through the spectrum of the orders of the plant kingdom. She has brought her handful of students to the gardens for a lab on Tuesday afternoons. This gives us the chance to have students actively involved in the Marsh Gardens site, but also helps us to provide better service: In the past, plants were taken down to OML to provide specimens for this kind of class. But because of the size of many of our plants, the lack of a good vehicle for such movement and the number of plants involved, the present arrangement is an unqualified success.

We also provide plants for classes taught by Nancy Rosenbaum, Mary Klineand Mary Helen Goldsmith. These we have been transporting to OML as needs dictate, but we hope that the success of Dianella's class will encourage others to come on down, whether it's on a weekly basis, or less frequently. There is no place more hospitable than the old headhouse of Greenhouse Number Two when the temperatures outside are dipping below freezing. We have been known to provide tea and coffee for labs, but we don't promise this service every week.

Dave Garinger demonstrates the carnivorous qualities of some plants in our collection. Dianella Howarth to his right and her assistant and class have been a vital part of our effort to avoid the winter doldrums.. Our classroom includes dissecting microscopes, dissectng tools and hot beverages. Photo: Eric Larson

With Palm fronds waving above the class, Dave Garinger continues his orientation tour for the class. No better place to spend a day studying plants in the dead of winter. Photo: Eric Larson

Featured Plant

I finally had to give up the title Plant of the Week, as our Newsletter comes out less frequently than that title would suggest. This is difficult for me, because for fifteen years at Haverford College, I wrote a Plant of the Week column for the college newsletter. The weekly deadline was both inspiring and limiting. So, we will rename the column the Featured Plant, until a catchier title comes along. I am also soliciting articles from anyone interested in writing about plants that have merit or meaning.

This issue's plant is blooming profusely in the greenhouse right now, and its olfactory presence is hard to miss. **Gardenia jasminoides** is one of those plants that merit attention on the strength of its aroma alone.

A member of the Madder family, Rubiaceae, this native of Taiwan, China and Japan, has long been cultivated. Brought to this country in the plant-collecting craze of the 1800's, it has graced many a southern landscape and northern greenhouse. This is because Gardenia's hardiness ranges from USDA Zone 6 through 10, according to my source, which is Michael Dirr's *Manual of Woody Landscape Plants*, a Bible among those of us who appreciate pithy writing, and a willingness to express one's opinion, while staying true to the facts. I highly recommend the tome. However, I would look askance at the Zone 6 information presented therein for this plant: my experience is that unless it is sited *extremely* well, the vagaries of weather in Zone 6 will present problems.

This evergreen plant blooms over a very long period of time: mine is blooming now, and will continue, if a bit sporadically and less robustly, through the summer, which is important, as the blossoms will figure greatly in my nuptials, slated for July 31. The blooms are white, often double and, as advertised, extremely fragrant: some say its affect is almost an aphrodisiac. My only comment is that when I proposed to my blushing fiancée, I made sure that there was a blossom in the area.

The evergreen leaves are glossy and dark green, opposite and whorled. With not much to recommend this small shrub (six to eight feet tall, with an almost equal width) beyond the flowers, it is a single season plant, albeit a long season.

Planted in a large pot, as in the picture, Gardenia's will grow slowly to the dimensions of the pot, but every few years, the plant should be re-potted into a larger container. Some prefer plastic or composite, but I think clay is better for the plant. It does dry out faster in the summer time in a clay pot, but Gardenia's beg for the attention: put your nose in a flower when watering and you'll see what I mean.

They prefer full sun: a dark room will spell trouble for Gardenias, while a greenhouse or sunroom would be perfect. In the summer, take it outside and set the pot near the patio or pool: it will appreciate the air movement and dappled sunlight. Do not allow the plant to dry out, fertilize sparingly in the winter, and once every three weeks in the summer with a balanced soluble fertilizer, or compost tea. There are a few bugs to be aware of, but if they like their surroundings, they will thrive with otherwise little care.

One other note: I have noticed that Gardenias purchased at even the best garden centers seem to be planted three or sometimes more plants to a small pot. This is to make it appear bushy, but spells doom for the survival of any of them. Look for a single plant in a single pot, or take cuttings from mine in July and August.

Please feel free to come by Marsh Gardens and take a whiff of the Gardenia growing here.