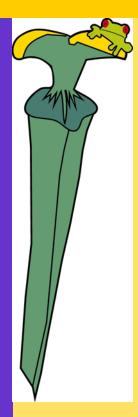
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#### Winter 2008



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# EADOWVIEW SIOLOGICAL RESEARCH STATION

### Letter from the President

Dear Friends of Meadowview,

This newsletter summarizes what we have accomplished at Meadowview in 2007 and 2008. There has been so much activity for our organization that you need an update on these important events while we prepare a more detailed newsletter.

Specifically, this newsletter includes an annual report for 2007 and 2008 that contains highlights for the respective years in bullet format. We are also including financial information for 2007. I think you will be very pleased to read the status report on Joseph Pines Preserve and the tremendous progress being made on our preserve. Meadowview has committed to supporting two full time interns at Meadowview and we are featuring intern profiles. Meadowview has also made a significant financial investment to reduce fossil fuel greenhouse gas emissions by purchasing a Central Boiler Wood Furnace to heat both the Operations Center and Greenhouse. We include a story on the utility of the wood furnace and expected cost savings.

We wrap up the newsletter with a renewal/donation form. If your membership has expired you will see a "Need to Renew" sticker on the newsletter. Even if your membership hasn't expired please consider donating to both Operations and the Joseph Pines Preserve. We are in the home stretch of paying off the Joseph Pines Preserve. If all our members contribute \$100.00 each we can pay off the note on Joseph Pines Preserve. While we are getting more done our operational costs have also increased and we need support in that area to continue to function. When you consider that Meadowview is run by full time volunteers your donation investment yields a high return in charitable work performed by our non-profit organization. Please consider donating to both the Joseph Pines Preserve and to General Operations. Donations can be made electronically through PayPal by using our e-mail address meadowview@pitcherplant.org. Financial statements of Meadowview are available upon request either from us directly or through the Commonwealth of Virginia Department of Agriculture and Consumer Services.

Throughout 2007 and 2008 we conducted extensive field inventory, reintroduction, and restoration. While we have made progress in reintroduction and restoration we are witnessing an ecological disaster for native pitcher plant populations in Maryland and Virginia. This story will be featured in an upcoming newsletter called "Pitchers in Peril".

With the help of our volunteers and summer interns we also managed to complete the potting of an impressive number of plants for both sales, research, and restoration purposes. We have introduced technology and equipment to improve our efficiency in energy consumption, the environment our plants are raised in, and greater productivity and quality in the

way we care for the plants.

Meadowview has been continuing educational work with governors school students, local school programs, and the Chesapeake Bay summer program where students are educated concerning the delicate ecosystem of seepage bogs which feed the Chesapeake Bay. We are also working with students from the area on research projects and helping them fulfill course requirements to complete their education. The results of these activities are both rewarding and exciting and bring us ever closer to Meadowview's mission of conservation and protection of the invaluable pitcher plant ecosystem we possess in Maryland and Virginia.

Another exciting development is the first hard copy of the Meadowview plant catalog for 2009. The catalog features many new, exclusive, and limited offerings. The catalog is free to current members upon request or \$5.00 to non-members. We do ask \$2.00 for postage on the catalog from members. Some of the plants offered are in very limited numbers so we suggest you order before they are sold out. Orders can be placed in advance to secure these rarities with a specified shipping date for your convenience.

We are also looking for qualified individuals to serve on the board and as officers of Meadowview. Both Director Dr. Rob Griesbach and Treasurer Cindy LaPorta have retired from Meadowview after several years of invaluable service. They will both be missed from their respective positions and we wish them well. We are expanding our board to five members to meet Better Business Bureau Standards and need two more directors. Ideal candidates should live in the Fredericksburg area so they can attend 3 face to face meetings a year, should have a passion for and knowledge of pitcher plants and associated ecosystems, and have a proven ability to assist with fundraising efforts. Officer positions are available for Vice President, Secretary, and Treasurer. All officers should have some knowledge of our field. In particular, the Treasurer should be able to keep Quick Books updated on a monthly basis, set up "classes" for our various programs, and take advantage of the other features on Quick Books to allow for increased volume and activity. The Treasurer should be familiar with the field in terms of helping to secure grants by providing timely financial information. Description of the duties of officers and directors is available on the About Us link on our web site at www.pitcherplant.org under Articles of Incorporation. A copy of these duties can be mailed to you if you do not have computer access. Please contact me if you are interested in one of these positions.

I want to thank you all for your vital support which makes Meadowview possible. With your help we can work towards a better future for the plants, the ecosystem, and ultimately all who enjoy and coexist with it.

Sincerely,

Phil Sheridan, Director and President

#### **Meadowview Governing Board**

Contact information: Ph. 804-633-4336, meadowview@pitcherplant.org, www.pitcherplant.org

#### **Directors**

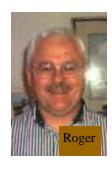
Phil Sheridan Roger Horman James Robinson

#### **President**

Phil Sheridan







## ANNUAL REPORTS

The following is an overview of Meadowview's income and expenses for the fiscal year that ended December 31, 2007:

Total revenues and support	\$68,415
Program service expenses	\$41,455
Management and general expenses	\$7311
Total expenses	\$48,766
Ending net asset balance	\$86,597

## 2007 Highlights

- Identified turpentine stumps outside the historic range of longleaf pine
- Continued anatomical research to differentiate longleaf pine wood from other southern pines



- Attended and hosted Meadowview booth at Environment Virginia 2007 conference in Lexington, VA
- Supported intern Nick Haywood working at Meadowview on rare plant conservation and propagation in June



- Completed four new propagation beds at Meadowview adding 748 square feet of growing space
- Added Jim Robinson to Meadowview's Board of Directors
- Continued educational program with Governor's School students and expanded student volunteer program at Meadowview
- Discovered and identified 3 new rare native species on the Joseph Pines Preserve
- Cleared and chemically treated over 40 acres of hardwood competition at Joseph Pines in preparation for native Virginia longleaf pine restoration



- Completed first growing season under-story burn at Joseph Pines on 12 acres of 30+ year old timber
- Successfully hosted Longleaf Pine Ecosystem Restoration Conference in October at the Wakefield 4-H Center. Over 80 people attended or involved in conference.
- Continued monitoring and collecting data on native pitcher plant sites



- Hosted and supported Dr. Bartosz Plachno from the Jagiellonian University in Crakow, Poland to study *Utricularia* at Meadowview
- Presentation of pitcher plant genetics by student volunteer Cheslisse Perry at Virginia Academy of Science

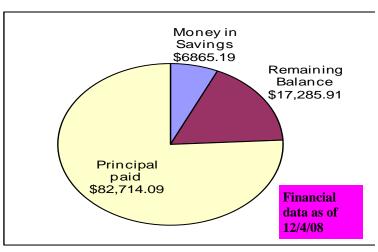
## 2008 Highlights

- Repotted 767 plants for sales and 555 plants for research purposes.
- Engaged in brush cutting at various native pitcher plant sites and Joseph Pines to reduce impact from competing hardwoods
- Housed 4 full-time volunteer interns over the 2008 growing season.
- Installed a wood burning furnace to lower heating costs and reduce dependence on fossil propane fuel.
- Propagated and divided rare plants for reintroduction to Joseph Pines Preserve.
- Developed the first hard copy of Meadowview's plant catalog for 2009.
- Added three more plant propagation beds increasing facility by 436 square feet
- Reintroduced native pitcher plants to extirpated site in Caroline County with landowners approval.
- Continued to oversee ongoing school research projects with two advanced education high school seniors; hosted educational talks and tours with Governor's school students, Chesapeake Bay student tours, Teachers on the Bay, and International Water Gardening Society members.
- Featured in 4 separate regional and national newspapers about native pitcher plant and longleaf pine conservation efforts by Meadowview.
- Monitored various pitcher plant populations in habitat and explored potential new plant sites.
- Upgraded infrastructure throughout the Research Station including: an ecologically friendly woodburning furnace for heating greenhouse and Research Station; a new porch deck installed by volunteers from PrintPak; installation of evaporative cooler in greenhouse; added cement mixer to speed repotting/ dividing of collection by increasing efficiency of soil mixing; retrofitted existing well to give clear, potable, sanitized water for use by volunteers and interns at the Research Station.
- Collected data for longleaf pine seedling germination and hybridization rate
- Presented two posters of longleaf pine research at the 2008 longleaf pine restoration conference in San Destin, Florida
- Burned over 70 acres of chipped brush and forest understory at Joseph Pines



## **Joseph Pines Updates**

The past 2 years have been very exciting for the Joseph Pines preserve. Three state rare plants have been discovered growing naturally on the preserve (Rafinesque's seedbox, Sandhills lily, and red milkweed) that are associates of a longleaf pine/pitcher plant ecosystem. The rare yellow spotted turtle was also fond in 2008 during bog clearing by volunteer Dave Evans. We have reintroduced over half of our 18 rare plant species slated for restoration and we have now completed all initial burning, clearing, and chemical maintenance of the property. The preserve is almost paid



off and we now need only about \$11,000 to pay off the preserve note.

#### Call for Volunteers!

Yellow spotted turtle

We are planning a March 2009 camping trip on the Joseph Pines Preserve to plant over 1500 native Virginia longleaf pine that we have propagated. A few days over the course of a weekend (March 7-8) will be set aside specifically for seedling introduction. Meadowview is putting out a special request for volunteers to help in a variety of ways for this busy event. Assistance could be in the form of an 'eco-vacation' or simply a volunteer weekend. We will continue working at the preserve beyond the weekend on a variety of activities. If you don't want to camp lodging is available at nearby hotels or the Wakefield Airfield 4-H Center. We need volunteers to:

- 1. Cook and start the daily chuck wagon preparing daily and highly appreciated meals!
- 2. Collect firewood
- 3. Plant seedlings, clear brush and de-mound old dirt piles

Accommodations on the preserve are available in the form of camping. The campsite has potable well water and electricity with one camper which can house a maximum of three people. The camper has a furnace, hot and cold running water, kitchen, and bathroom. If anyone has an extra travel trailer or camper to donate for volunteer lodging at the preserve please let us know.



Anyone interested and available to give a hand may contact us at the Research facility at: 804-633-4336

Spring (left) and summer (right) camping at the Joseph Pines Preserve. Note campsite replete with gas and charcoal grills, furniture, and restored vintage Coachman camper.







## INTERN PROFILES

Meadowview was fortunate to support one intern in 2007 and four interns in 2008. Both Nick and Rebecca worked the summer of 2008 and returned in October as full time interns at Meadowview. Meadowview is providing a significant level of support for the interns with room and board and we need your help to maintain this commitment to the intern program.

**Craig Rudman** from the Royal Botanic Gardens in Kew, England worked with us for three weeks in May 2008 on *Sarracenia* conservation. Craig helped reintroduce over 500 seed raised native Virginia yellow pitcher plant and other rare species to the Joseph Pines Preserve, helped clear brush from one of our VDOT pitcher plant restoration projects, and took part in an expedition with volunteer Mike Hammond and Director Phil Sheridan to Kentucky to investigate a historic report of *Sarracenia oreophila*.

**Nathan Books** took a week of vacation to intern in June 2008 with interns Nick Haywood and Rebecca Elliott. Nick, Nathan, and Rebecca formed an excellent team and worked on repotting the extensive Meadowview collection, field inventory of natural sites, and brush clearing on restoration projects.



Nick Haywood is currently a sophomore at the Horticulture Department at Temple University in Philadelphia and has been in contact with Meadowview pursuing his education in pitcher plant ecology since he was 13. Nick served one month in June 2007 and returned for the summer of 2008. His interest in education and conservation has been fostered by the encouragement of Program Director Phil Sheridan. The last two years he has worked over summer as a full-time volunteer and has decided to pursue Meadowview's commitment to conservation on a full time dedicated basis. He has extensive experience growing plants of many families and genera showing award-winning plants at the Philadelphia Flower Show. He also is an enthusiastic member of many plant societies and possesses a deep conviction for the protection of vulnerable and endangered plants. He is committed to Meadowview's success.





**Rebecca Elliott** is from Vancouver, Brit-

ish Columbia, Canada and returned to Meadowview in the fall of 2008 for her second term. She has background in horticulture and agricultural technology from the University of the Fraser Valley. The well being and survival of the threatened pitcher plant has been an increasing concern for her, as their numbers continue to diminish in native habitat, and she is dedicated to aid in their preservation. No organizations in Canada are dedicated to the conservation of these fascinating plants, and Meadowview's proactive approach in saving not only the

native pitcher plant but numerous other threatened species, has been an incredible experience and education in ecology and conservation. As of now, Rebecca is a full time intern at Meadowview and looks forward to helping complete Meadowview's mission in the future.

# WOOD FURNACE

In an effort to reduce fossil fuel propane use and cut costs, Meadowview has recently added a wood-burning furnace to heat the Research Station and the Greenhouse. The furnace and support equipment was produced by Central Boiler, Inc. of Greenbush, Minnesota and installed by factory authorized dealer Ellis Contracting, Inc. of Providence Forge, Virginia. The system was installed over a 2 day period in mid-November 2008. Meadowview is being heated exclusively with firewood obtained locally and at no cost. Whole logs up to 33 inches long are placed in the furnace, go through destructive distillation, and the subsequent wood and charcoal are burned and heat a surrounding water jacket. The warm water (180F) is pumped to a 100,000 Btu fan forced coil in the greenhouse and five radiators in the Research Station living quarters. The system also supplies instant, unlimited domestic hot water.

Meadowview was paying over \$2000/year just to heat the greenhouse. With interns moving into full time winter residency at the Research Station we expected our fuel costs to more than double. We expect that the wood furnace will therefore pay for itself within 5-7 years. A loan was obtained for \$14,000 from our local Union Bank and Trust to pay for the complete system and installation. Payments on the wood furnace loan are \$277/ month. Donations are being accepted to help us pay off this loan.

An additional benefit of using the wood furnace is the positive impact we hope to have on our environment as we gravitate toward a more carbon neutral existence. While both wood and propane combustion emit greenhouse gases, wood use differs in a positive way since it is part of the carbon cycle. Wood that is burned is taken up by plants and incorporated in new wood which can then be burned again. Propane, however, is a fossilized hydrocarbon buried within the crust of the earth and when burned produces a net increase in carbon dioxide within the atmosphere. We wish our efforts to be a step toward a more energy independent future – potentially in the form of wind and solar energy sources. For more information on the Central Boiler wood furnace heating system, contact us for a tour of wood furnace operations or visit the Central Boiler website at: www.centralboiler.com





Meadowview Biological Research Station 8390 Fredericksburg Tnpk. Woodford, VA 22580