



Notes and News From  
**MEADOWVIEW**  
**BIOLOGICAL RESEARCH STATION**

8390 Fredericksburg Turnpike

Woodford, Virginia 22580

www.pitcherplant.org

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## The Rare and Beautiful Virginia *Sarracenia flava* L.

*"Sarracenia flava in Virginia. - Early on the morning of June 17, 1904, while coming up through Virginia on the Seaboard Air Line, I saw from the train, in Dinwiddie County, seven miles below Petersburg, a colony (containing probably several hundred individuals) of Sarracenia flava. As I was traveling at the rate of about a mile a minute, I did not have time to examine its habitat very closely, but the plants seemed to be growing in a sort of meadow, just as I have seen them in North Carolina, about forty miles farther south."*

The above comments are excerpts from a 1904 note in the botanical journal *Torreyia* by the famous southeastern botanist Dr. Roland Harper. The colony of yellow pitcher plant observed by Dr. Harper was eventually destroyed by railroad right-of-way operations in the 1960's. A number of new yellow pitcher plant sites were discovered during botanical expedi-

tions by Dr. M.L. Fernald during the 1930's but all save one have been extirpated.

Over the course of 100 years, 20 documented natural yellow pitcher plant sites had been reduced to four populations with less than 100 plants. As we celebrate the 100th anniversary of Dr. Harper's rediscovery of yellow pitcher plant (*Sarracenia flava*) in Virginia and examine the disturbing decline in plant populations, we have an opportunity to examine the unique role that Meadowview has in preserving and restoring the remnants of Virginia's imperiled pitcher plant ecosystem. Based on several decades of work by our members and staff we were able to catalogue existing pitcher plant sites and maintain germplasm (from divisions or seed) at the research station in Caroline County, Virginia. In the case of the yellow pitcher plant, Meadowview maintained six threatened populations in raised beds at the research station. Each of

*Continued on page 3*



# MEET THE MEADOWVIEW TEAM

## BOARD OF DIRECTORS AND OFFICERS



**Dr. Rob Griesbach**  
*Board of Directors*



**Roger Horman**  
*Board of Directors*



**Phil Sheridan**  
*Founder  
Director/President*



**Cynthia LaPorta**  
*CPA, Treasurer*

# ABOUT MEADOWVIEW

*Who Are We?*

Meadowview Biological Research Station is a non-profit 501(c)(3) organization founded to preserve and restore Virginia and Maryland's pitcher plant ecosystem. The organization was named in 1995, incorporated in 1998, and received non-profit designation in 2000. Organizational by-laws, articles of incorporation, and determination letter can be obtained upon request or can be easily read or printed out from our web site at [www.pitcherplant.org](http://www.pitcherplant.org).



## MEADOWVIEW BOARD OF DIRECTORS AND OFFICERS

The Meadowview *Board of Directors* consists of **Phil Sheridan**, **Roger Horman**, and **Dr. Rob Griesbach**.

**DR. GRIESBACH** is a geneticist with the USDA Floral and Nursery Plant Research in Beltsville, Maryland. His scientific expertise and connections within the plant industry are important to accomplishing the mission of Meadowview. The two last box huckleberry plants, *Gaylussacia brachycera* (Michaux) Gray, in Maryland were prevented from going extinct due to a rescue and propagation effort promoted by Meadowview and undertaken by Dr. Griesbach. Box huckleberry is an associate of white-cedar/pitcher plant ecosystems and is endangered in Maryland. The plants will be propagated for reintroduction. A breeding program at USDA will also produce a box huckleberry cultivar for commercial release and monies raised will be used to fund rare plant conservation in Maryland.

**ROGER HORMAN** works for the U.S. Navy as a principal scientist, in Dahlgren, Virginia and recently won the base's highest honor; the John Adolphus Dahlgren Award. Roger and his wife Susan have been instrumental in obtaining grant funding and donations for Meadowview. Both are accomplished Master Gardeners. Due to the Horman's efforts Meadowview was a principal in both the Toyota Tapestry and Dominion Virginia Power Partnership grants awarded to Potomac Elementary School in 1999 and 2000. Those grants not only resulted in the students performing significant research on pitcher plants but also allowed the introduction of native Virginia longleaf pine and yellow pitcher plant to two sites within the species historical range in Virginia. Roger also provides invaluable service as Meadowview's webmaster.

**PHIL SHERIDAN** is the founder, a director, and president of Meadowview. Phil has both a B.S. and M.S. in Biology and is currently enrolled in the Ph.D. program at Old Dominion University investigating pitcher plant genetics. Phil has extensive background studying pitcher plant ecosystems and their conservation. Prior to devoting himself to Meadowview full time, Phil worked in the savings bank industry for ten years. His expertise in the area of pitcher plants and their supporting ecosystems is internationally recognized.

**CYNTHIA LAPORTA**, CPA, is Meadowview's Treasurer. Cynthia has a B.S. in Accounting from George Mason University and over 15 years experience in public accounting providing auditing, accounting, and tax services to not-for-profit organizations.



# Savor the Flava!...Continued from page 1

these beds represented divisions or seed-raised plants from wild sites in southern Virginia. The beds were maintained over a fifteen-year period while we conducted research on the plants genetics and population biology. While we maintained these yellow pitcher plant populations at the research station, two source sites went extinct, while two others were reduced to a single plant each. We are thankful that at least we were able to maintain and save the germplasm. Now plants derived from these sources are back in the wild at Joseph Pines Preserve, where we look forward to watching them flourish in a protected environment.

## The Joseph Pines Preserve



Entrance to the Preserve

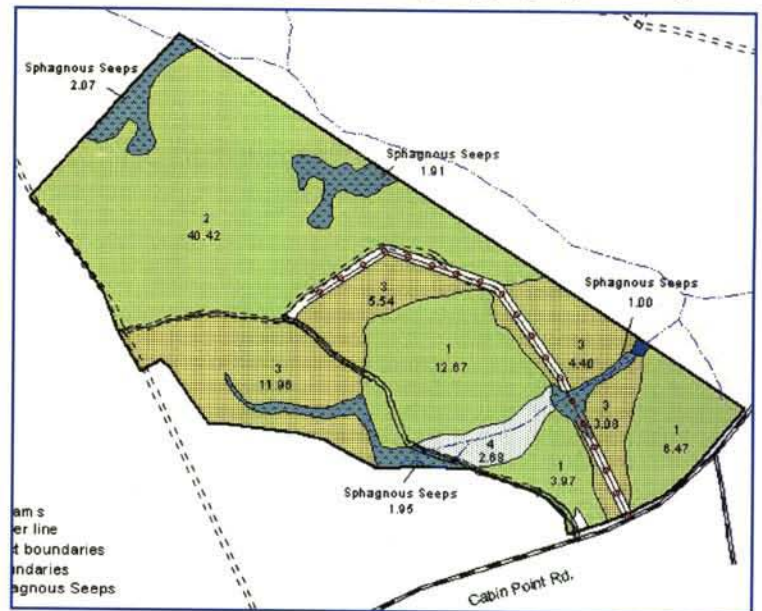
To meet the challenge of the continued loss of yellow pitcher plant populations and their supporting ecosystems Meadowview embarked on fulfilling its 10-year goal of establishing a series of bog preserves in Maryland in Virginia. Since the pitcher plant system has been virtually extirpated in Virginia we are forced to resynthesize the system. This has entailed studying historic reports and lists of species reported in this system in Virginia and then finding remaining fragments within the state, collecting their germplasm, and then reassembling that system on the preserve. While other conservation organizations do an excellent job of preserving intact, exemplary ecosystems no such system was left in Virginia and hence the task of reassembly was left to Meadowview. Starting in November 2001, Meadowview signed a four-year lease with Brad and Marsha Whitehead to use their 100 acre property as our first major pitcher plant preserve.

The property is located in the heart of the range of the yellow pitcher plant and is characterized by gently rolling terrain grading down to springy sphagnum bogs and seeps, ideal pitcher

plant habitat. Historic yellow pitcher plant populations were recorded close by and presence of indicator plant species on the property suggest we have suitable habitat for restoration. We did a native Virginia yellow pitcher plant introduction on the property in 1996 and the plants have flourished.

During the winter of 2001 - 2002 preserve activities entailed rebuilding existing roads on the preserve for access, extensive brush clearing using a tractor and bush-hog, and planting of native Virginia longleaf pine on the preserve. A healthy pitcher plant system includes a variety of plant associates. Longleaf pine is a keystone species in pitcher plant systems since it mediates natural, lightning

caused fires essential to maintaining pitcher plant habitats in an open condition. The plight of longleaf pine in Virginia is similar to yellow pitcher plant. At the time of this country's settlement scientists estimate that longleaf pine covered





# The President's Message

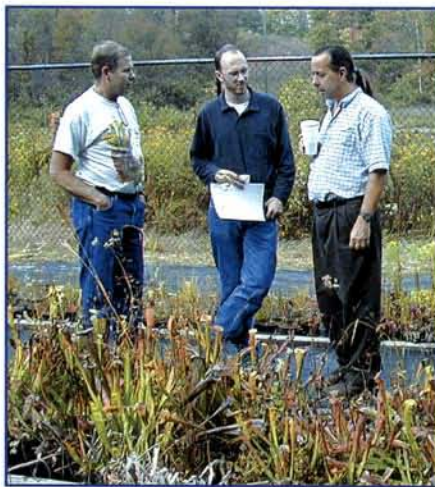


*Phil Sheridan, President*

As we enter the New Year, we can reflect on the success and growth that Meadowview has enjoyed over its nine year history. We have conducted rare plant surveys in the Fall Line Sandhills of Georgia for the Georgia Natural Heritage Program and discovered numerous rare plant occurrences, including a number of rare pitcher plant populations. In southern

Maryland, we succeeded in our efforts to bring attention to, and protect, Piney Branch Bog—Southern Maryland's only native purple pitcher plant site. Our efforts on behalf of Piney Branch Bog resulted in Free State Electric, LLC donating \$500,000 to The Nature Conservancy for management and study of Piney Branch Bog. Further efforts in Maryland resulted in preventing extinction of the endangered box huckleberry, removal of a storm drain damaging a unique pitcher plant site in Anne Arundel County, and the discovery of a pitch pine peatland with purple pitcher plant on the Magothy River. The Magothy River pitcher plant discovery represents the only extant station for purple pitcher plant on this river and the third native site on the western shore of Maryland.

In the propagation arena we continue to raise large numbers of pitcher plants, orchids, longleaf pine, and associate species for restoration, research, and horticultural purposes. Volunteer Leif Jacobson is responsible for extensive redevelopment of the propagation beds at Meadowview. Leif developed and introduced a novel method of effectively and efficiently raising large numbers of seedlings while preventing seed cross contamination. Plant sales are not only an important source of income but play an important role in outreach and education of the public. Sales of propagated plants continue to be our chief source of revenue.



*Phil (right) talks pitcher plants with guests*

Meadowview has a large number of peer reviewed articles in prestigious journals and proceedings. Our *Sarracenia* inbreeding paper, published in the *American Journal of Botany*, received the *North Carolina Botanic Garden Award for Best Paper* on the Ecology, Systematics, and Conservation of Southeastern Plants at the 2000 Annual Meeting of the Association of Southeastern Biologists. Almost all of our papers can

A Natural A



*Sarracenia flava*



Architectural Marvel



*Sarracenia* 'Red Tube'

© S.HEDDERLY

be downloaded from our research link on our web site which can be found at <http://www.pitcherplant.org/research/>. In addition to attending numerous scientific meetings every year, Meadowview co-chaired the 2003 Atlantic White Cedar symposium held at Arlington Echo Outdoor Education Center in Annapolis, Maryland.

Reintroduction efforts have chiefly focused in Virginia. We now have a yellow pitcher plant population established in six of the eight southern Virginia counties where this species historically occurred. Reintroducing plants in viable areas where they are known to have existed is one method of slowing down, and hopefully preventing, the systematic extinction of these beautiful and interesting plants. Reintroduction efforts are also used to involve and educate. For example, part of our reintroduction success was due to collaborative efforts with the Virginia Department of Transportation (VDOT). Created VDOT wetland mitigation sites are analyzed for pitcher plant restoration, excellent sites are found, and reintroduction work authorized. We were able to successfully involve students from Potomac Elementary School in research and reintroduction of native Virginia longleaf pine and pitcher plants to a VDOT wetland site in Greensville County and an ideal site in Isle of Wight County with the help of grant funding from Toyota Tapestry Grant and Dominion Virginia Power Partnership Grant. Meadowview continues to receive numerous school groups throughout the year who come to learn about our rare and interesting wetland plants, as well as their supporting ecosystems.



*Intern Jonathan Boynton examines pitcher plants at VDOT site*

I want to thank you for your past and continued support of Meadowview. Without your time, interest, plant purchases, memberships, and donations, the array of accomplishments Meadowview has achieved would not have been possible. Together we are working to prevent extinction and build visibility around a beautiful and fascinating rare wetland ecosystem. I look forward to much more progress in the coming year. Again, thank you very much for your support and interest. Looking forward to 2004!



*Interested onlookers learn about propagation*



# Large Greenhouse Donated To Meadowview

Grateful Recipients and Volunteers Work on Monumental Task of Relocating 1,000-square-foot Greenhouse

Meadowview received donation of a Janco 20' x 50' glass/aluminum greenhouse in January, 2004 from Edie and Miltos George of historic *Berclair Plantation* in Frdericksburg, Virginia. (*Berclair* was the home to George Washington's brother Charles.) The donation also included sturdy benches, pavers, and equipment. Throughout the fall Mike Hammond, Al Gustin, Edward Trombley, Ellen Verbosky, and Phil Sheridan worked to disassemble the structure and transport it to Meadowview. Disassembly and relocation phase of the project involved over 240 labor hours to complete.



*The greenhouse as it stood; a daunting disassembly task*



*Phil Sheridan and Mike Hammond working hard*

The next step is the construction phase. This involves obtaining a county variance for siting. The county has approved the variance in concept; however the cost to officially get the variance approved is \$600. Efforts to get the county to waive this fee have been unsuccessful to date but we are still working our way through the system. Once the variance can be obtained, a concrete foundation pad will be poured and cinderblock wall constructed. Completion of the masonry work will allow us to reassemble the greenhouse and put it to use, initially as a c o l d frame. The 1,000 square feet of growing space provided by the Janco greenhouse will allow considerable expansion of our propagation and research efforts. Our long term goal is to obtain an integrated heating system consisting of an outside wood boiler with back-up fuel oil system, which can run both our existing Juliana greenhouse, heat Meadowview, and the Janco Greenhouse. The wood boiler could use debris and wood cleared from the Joseph Pines Preserve to heat the Meadowview facility, providing Meadowview with a cost feasible method of heating such a large greenhouse space while at the same time enabling management of the preserve.

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*Ed Trombley removes masonry from greenhouse*

©All photos by Al Gustin



# A Talk On The Wild Side

**Guest Speaker**

**BILL SCHOLL**

**Mesmerizes**

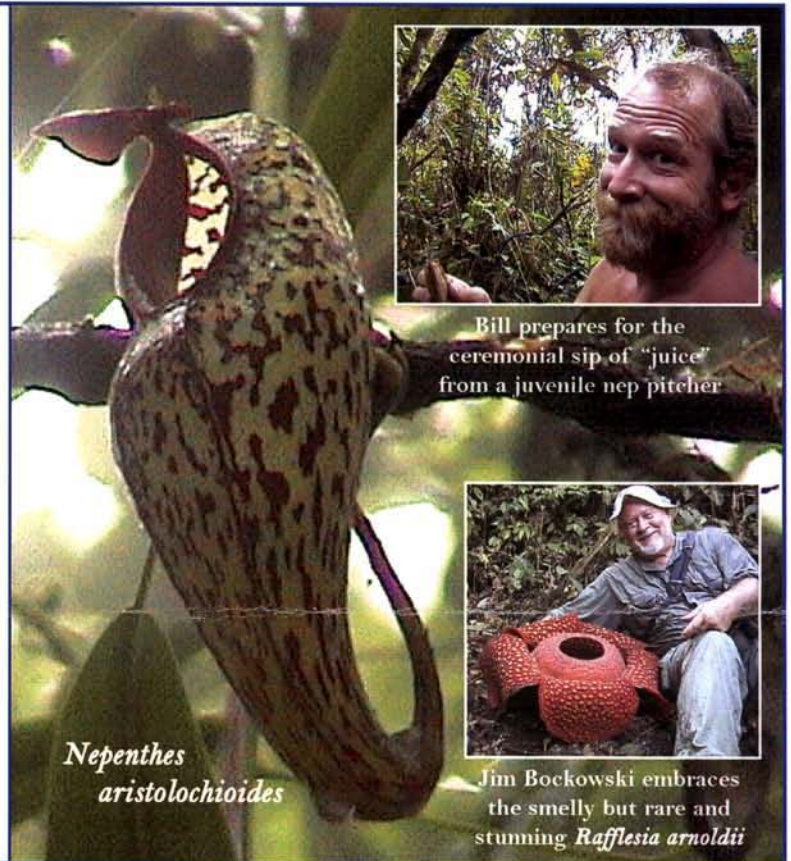
**Audience with**

**Discussion**

**of Sumatra's**

**NEPENTHES**

by Phil Sheridan



*Nepenthes aristolochioides*

Bill prepares for the ceremonial sip of "juice" from a juvenile nep pitcher

Jim Bockowski embraces the smelly but rare and stunning *Rafflesia arnoldii*

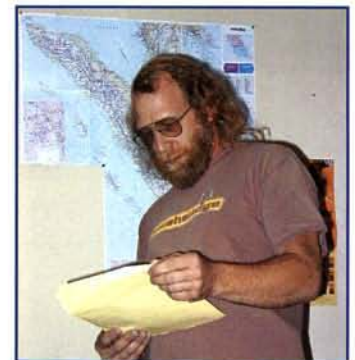
## MEADOWVIEW'S FALL SPECIAL EVENT, OCTOBER 11, 2003

On October 11th, 2003, Bill Scholl was the fall speaker at Meadowview. Mr. Scholl discussed his trip to Sumatra to videotape the Asian pitcher plant genus *Nepenthes*. Sumatra is an island in the Malay archipelago that contains almost a third of the more than 80 known *Nepenthes* species. During the two-week trip a third of the islands' *Nepenthes* were seen including *N. eustachya*, *N. gracilis*, *N. reinwardtiana*, *N. albomarginata*, *N. ampullaria*, *N. aristolochioides*, *N. adnata*, *N. longifolia*, *N. gymnanphora*, *N. singalana*, *N. mirabilis*, *N. spathulata*, and *N. tobaica*.



Breathtaking view of a volcanic caldera lake

Sumatran *Nepenthes* occur in jungles from sea level to nearly 2,600 meters. Mr. Scholl displayed stunning habitat shots of *Nepenthes* perched above volcanic caldera lakes and natural hybrids between *Nepenthes* species. Additional highlights of the trip included catching the rare *Rafflesia arnoldii* in bloom. *Rafflesia* is a rare parasitic plant that produces the largest flowers in the world. The flowers measure up to 3 feet across, open at ground level, and produce a carrion odor to attract fly pollinators. Support Mr. Scholl's next *Nepenthes* trip or go to Borneo with him!



Bill illustrates with maps

Mr. Scholl will be filming the *Nepenthes* of Borneo in June 2004 and presenting a talk about this trip at Meadowview in October 2004. Meadowview will provide a level of financial support and we are accepting donations to help fund this expedition. Round trip expenses total nearly \$4,000 so any donation would be appreciated. If you are even more adventurous and would like to travel with him to see the Borneo's pitcher plants first hand, please contact Mr. Scholl at (804) 874-8644. We hope to see you at the 2004 talk where you can partake of the breathtaking views of Borneo's *Nepenthes* and their habitat.



Dr. Charles Clark, Scientist, Author, Explorer



# Savor the Flavor... Joseph Pines Preserve

*continued from page 3*

1.5 million acres in southeastern Virginia. Production of naval stores (tar, pitch, and turpentine), heavy logging, and destruction of seedlings by feral hogs combined with logging and fire exclusion in the modern era resulted in only 4,432 longleaf pine trees remaining on less than 800 acres. (Meadowview census, 1998). Even worse, half the remaining trees are less-fit Louisiana stock that does not have the same qualities as Virginia longleaf pine. Meadowview volunteers go out every fall and collect cones from the native Virginia longleaf pine and raise the seedlings for restoration purposes on the Joseph Pines.

For the 2002-2003 season we greatly expanded the trail system on the preserve. This allowed us to access some of the highest quality sphagnum seeps on the property and begin brush clearing in preparation for pitcher plant planting. Throughout the early spring of 2003, all our native Virginia yellow pitcher plants were removed from the beds at the research station, transported to the preserve, and planted and flagged.



*Jo Weaver (foreground) clearing woody competitors while Fred Weaver (background) plants native Virginia yellow pitcher plants in a sphagnum/peat bog*

Typically each bed (containing germplasm from a single site) was planted in a separate seep or there was physical separation between genetic stocks. In all, over 1,200 yellow pitcher plant were planted on the preserve last year. In addition, limited stocks of native associates such as purple pitcher plant (*Sarracenia purpurea* L.), white-fringed orchid (*Platanthera blephariglottis* Willd. Lindl.), and short-leaved sneezeweed (*Helenium brevifolium* Nutt. Wood) were also planted and flagged. The plants look beautiful and are doing very well.

Our plans for winter 2004 include enhancement and expansion of the trail system to allow greater access and viewing by handicapped or disabled persons. We will also be clearing several acres on the uplands of young hardwoods and pines to allow us to do an extensive longleaf pine planting in the 2004-2005 winter season. Seed beds will also be prepared and experimental seeding of native yellow pitcher plant will be conducted.



*Osmose volunteers their services at Joseph Pines; Bill West applies herbicide to control hardwoods in the Virginia Longleaf restoration area*

To date, Meadowview has raised almost \$13,000 toward purchase of the preserve. The purchase price of the property is \$115,000. Donor Jim Robinson generously donated \$1,000 to get us over the \$10K mark and is currently holding the lead as our top preserve donor! We are finalizing a loan to enable purchase of the property this year. Meadowview relies on donations for funding of the Joseph Pines Preserve. (Meadowview's plant sales provide funds for operational expenses.) The big news on the Joseph Pines fundraising front is the October receipt of a \$50,000 matching pledge! The yearly tour of the preserve will be held this coming June 2004.



# Upcoming Meadowview Events!

- **NATURAL HISTORY OF PITCHER PLANT MITES,**

Feb. 28, 2004. 12:30 p.m. at Meadowview.

Dr. Rob Naczi, curator of the Delaware State University Clyde E. Phillips Herbarium, provides an insightful look into the interactions between pitcher plants and their invertebrate hosts. RSVP required.



- **EXOTIC PLANT SHOW AND SALE** at the Baltimore Conservancy and Botanic Garden, March 5-7, 2004. Maryland State Fairgrounds, Timonium, Maryland.

- **LAHR SYMPOSIUM AND PLANT SALE,** US National Arboretum, March 27, 2004

- **SPRING GARDEN DAY** plant sale at Green Springs Garden Park, Alexandria, Virginia; May 15, 2004.

Website: [www.greenspring.org](http://www.greenspring.org)

- **JOSEPH PINES PRESERVE TOUR,** June 5, 2004. Take a guided tour of Meadowview's pitcher plant and longleaf pine preserve in southern Virginia and learn about ongoing restoration efforts. RSVP required.

- **"A NEPENTHES EXPEDITION TO BORNEO",** October 2004. Meadowview. Come hear **Bill Scholl** speak about his trip to Borneo and Sumatra exploring and filming the habitat of the Asian pitcher plant *Nepenthes* with renowned experts Dr. Charles Clarke and Troy Davis. RSVP required.

Please check our events link for the most up-to-date information and rescheduling or cancellation of an event.

<http://www.pitcherplant.org/SpecialEvents.html>



## \$50,000

### Matching Donation Pledged to Joseph Pines!

An anonymous donor will match donations to the JOSEPH PINES PRESERVE to a limit of \$50,000. We hope you will consider Joseph Pines in your charitable giving; double the amount of your donations will be deposited into the Joseph Pines Fund. This is an excellent opportunity for you to donate to a worthy cause and get double the value for your donation.



Meadowview's Fall Speaker Event drew a great crowd—speaker Bill Scholl even brought his mom! Food, company and talk/video were excellent.



## MEADOWVIEW VOLUNTEERS AND INTERNS

Volunteers and interns are a tremendously important part of our organization. Meadowview can always use help in many areas such as data collection, repotting, propagation, plant maintenance, plant shows, educational outreach, and fund raising.

**If you would like to be a volunteer,**

please send an e-mail to  
meadowview@pitcherplant.org  
or give Phil a call at (804) 633-4336

Any help would be greatly appreciated!

We would like to take this opportunity to thank some of our very special volunteers and interns who have provided vital contributions. Your efforts have gone a long way in making Meadowview what it is today, and we salute you! Special thanks to **Pat Bingham, Jonathan Boynton, Linda and Monique Davies, Robert Gibson, Allen Gustin** (Meadowview Database Manager), **Mike Hammond, Suzanne Hedderly** (graphic design/production of newsletter/postcards), **Al Holland, Jonathan Humphrey, Leif Jacobson, Nancy Penick, Cindy Ragan, Phyllis and Mike Rasnake, Margie Sheridan, Bill Scholl, Chris Simon, Anne Simpson, Nancy and Eli Robbins Thorne-Thomsen, Ed Trombley, Keith Underwood, Ellen Verbosky, and Fred and Jo Weaver.**

**KUDO'S GUYS! THANKS FOR EVERYTHING!**

*"Meadowview sounds like a very worthwhile organization..."*

## How Can I Help?

One of the main ways you can help Meadowview is to take the time to **RENEW YOUR MEMBERSHIP**. We are mailing a renewal/donation/questionnaire form and ask that you take the time to check the accuracy of the information, renew your membership, and respond to the questions as needed. If any of your information has changed or is incorrect, please call us at (804) 633-4336 or e-mail the database manager Al Gustin at netmarketer1@aol.com so we can update our files.

Don't forget that donors of \$35 or more get a free coffee mug and donors of \$50 or more get a free t-shirt!

If you can't help financially there are other things you can do. Perhaps you could volunteer or you have a piece of equipment or supplies that would be useful to our organization. Any help you can provide is most appreciated and we thank you for thinking of us.



*Support Preservation/Restoration... Don't Forget to Renew Your Membership!*

**RETURN FOR BETTER ADDRESS**

**MEADOWVIEW**  
BIOLOGICAL RESEARCH STATION  
8390 Fredericksburg Turnpike  
Woodford, Virginia 22580

