VOLUME 7, ISSUE 1

Winter 2009

MEADOWVIEW BIOLOGICAL RESEARCH STATION
HOLIDAY NEWSLETTER

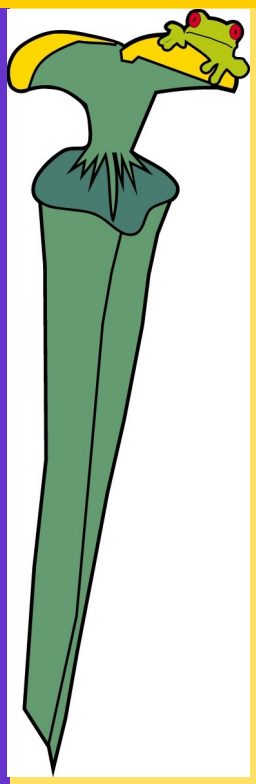
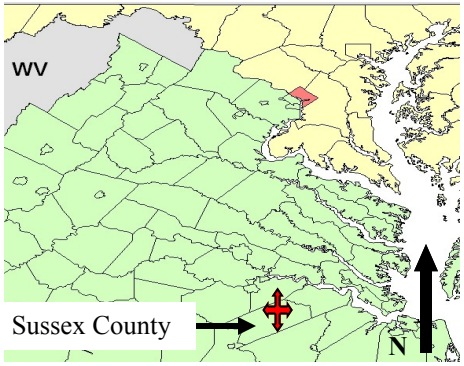


Table of Contents

A non-profit 501(c)(3) organization

Joseph Pines Preserve to Expand!



On October 28, 2009 the Virginia Department of Environmental Quality (DEQ) announced their intent to loan Meadowview $290,000 to purchase 134 acres for land conservation. We have been working hard to secure a grant or loan to acquire land adjacent to Joseph Pines Preserve and this was particularly good news after so much effort. The loan is under the Virginia Clean Water Revolving Loan Fund which has a special category for land conservation. The loan would be for 20 years at 3% interest.

The purchase of two adjoining tracts of 98 and 36 acres will more than double the size of the Joseph Pines Preserve, significantly enhance the scope of our restoration efforts, and provide important air and water quality benefits. The properties will enable us to protect almost the entire preserve watershed and give us buffers from future development. Part of the loan agreement with DEQ is that a conservation easement be placed on the prop-

(Joseph Pines continued on page 8)

Match Donation Starts Preserve in Caroline County, Central Virginia

In December 2009 Director Phil Sheridan donated his house and property to Meadowview to endow the operations side of the non-profit and launch the first preserve in Caroline County, Virginia. Phil had allowed the non-profit to use this property, free of charge, to get the non-profit started

(Central Virginia Preserve continued on page 4)

Letter from the President - Pitchers in Peril!

Dear Members:

This is the Holiday Season for giving and I am personally investing in the future of Meadowview by donating my major asset: the house and grounds where Meadowview is located in Caroline County, Virginia (see front page story). I worked very hard to pay off this property within 15 years while working in the banking industry (at low wages) and attending school to obtain my bachelors and masters degrees in biology. This donation is possible because I was blessed to meet and marry a wonderful woman who is equally supportive of the Meadowview work in preventing the extinction of the pitcher plants and their ecosystem.

I am donating this property to establish the headquarters of Meadowview and start our first preserve in Caroline County. Meadowview needs a matching donation to acquire a 3 acre pine woods and sphagnum bog contiguous to the research station. My wife purchased this 3 acre property in 2002 but she is not in a position to donate this asset. Since I am a board member, and this property is also in my name, Meadowview has been extremely careful to avoid any conflict of interest in this land purchase and the following steps were taken: I was not able to vote on the decision to purchase the property; an independent appraisal of the property was performed by a certified appraiser; the value of the land as a buildable lot was substantiated by county certification of drain field, house, and well site. Meadowview has no intention of building on this property.

I am donating my house and land as leverage for Meadowview to purchase this three acre tract and start our Caroline County preserve. The situation is urgent since we are losing our native pitcher plant populations in Maryland and Virginia and facing the extinction of these amazing plants. I'm defending my Ph.D. dissertation at Old Dominion University in Norfolk, Virginia and I would like to share with you some of my results documenting the extirpation of these plants. During my tenure in the Ph.D. program we have lost almost half our native purple pitcher plant colonies, and the remaining populations are almost all in serious decline. The population declines and extinctions are largely due to un-checked succession and beaver flooding.

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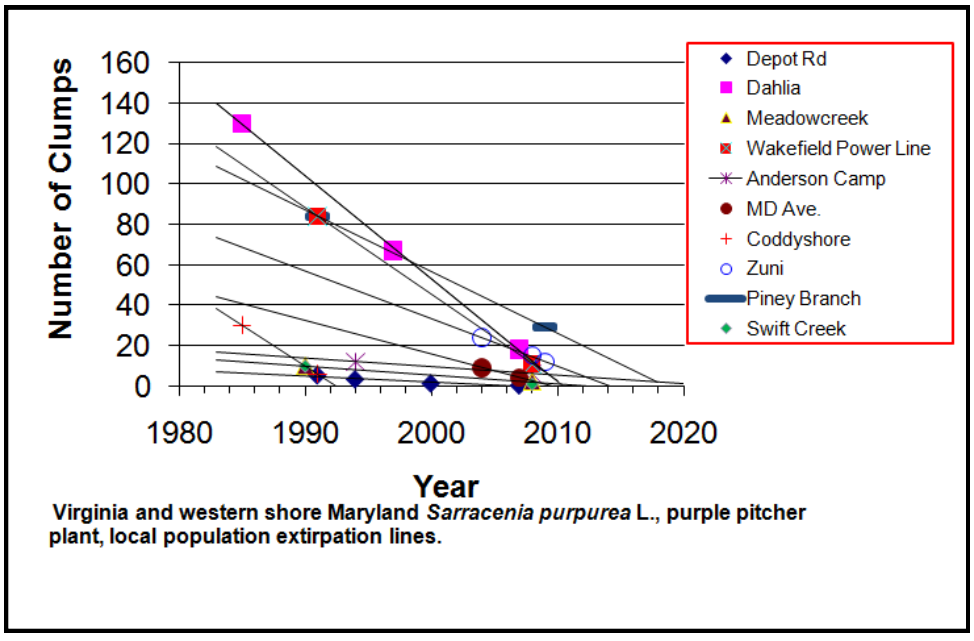
Phil Sheridan, Director and President
James Robinson, Director
Robert Wright, Director



Virginia and western shore Maryland *Sarracenia purpurea* L., purple pitcher plant, local population extirpation lines.

(Continued on page 12)

ANNUAL REPORT

The following is an overview of Meadowview's income and expenses for the fiscal year that ended December 31, 2008. A more detailed financial report or Form 990 is available upon request.

Total revenues and support	$33,713
Program service expenses	$22,957
Management and general expenses	$8,588
Total expenses	$31,545
Ending net asset balance	$88,767

2009 Highlights

- Interns Nick Haywood and Rebecca Elliott completed one year internship program
- 30 *Sarracenia* seed crosses sown and germinated in 177 pots
- Planted 1500 native Virginia longleaf pine on 25 acres at Joseph Pines Preserve

- Completed understory growing season burn in 1970 loblolly pine plantation at Joseph Pines Preserve
- Received $9489 grant from Fish America Foundation for road removal from wetland at Joseph Pines Preserve
- Continued greenhouse upgrades by installing dedicated electrical service, lighting, and humidification systems.

(Central Virginia Preserve from page 1)

and the time had finally come to hand the property over to Meadowview so it owned a "brick and mortar" headquarters.

The appraised value of the house and property is $62,000. Meadowview is seeking match donations to acquire an adjoining 3 acres with sphagnum bog (appraised value 20K), to establish the reserve account for the Joseph Pines Preserve (20K), and to provide money for repairs and improvements to the research station (22K). The house contains two bedrooms for intern or volunteer lodging, bathroom, office, conference area, break room, and kitchen. The facility includes a complete botanical and research library, dissecting microscope, and is completely furnished. The well and plumbing system have been refurbished to provide clean potable water. Cooling is provided by room air conditioners while the wood furnace heating system provides hot water for radiators and domestic use. A backup propane forced air heating system is also in place. Repair work is needed on the exterior siding of the Research Station and the old tin roof needs repainting or eventual replacement with a solar cell/metal roof. Interns, volunteers, and international visiting scientists have stayed at Meadowview house and we expect this trend to increase. Meadowview grounds include an extensive plant propagation bed system, two stocked tool sheds, and fully functional, climate controlled greenhouse.

A fifteen foot fee simple right-of-way connects Meadowview to the 3 acre parcel we need to acquire. The tract is characterized by mature loblolly pine and a hardwood understory on a sandy loam soil. A spring-fed sphagnum bog meanders through the property. Acquisition of this property provides an opportunity for volunteers to be involved in local restoration work. Meadowview is on the Virginia Birding Trail and the addition of 3 acres would allow us to provide a path through the woods for bird watchers, potentially increasing support for the organization.

One of the tracts further back in the woods contains the northern most population of purple pitcher plant, *Sarracenia purpurea*, in Virginia. The bog is a rare gravel seepage bog and contained the state threatened New Jersey Rush, *Juncus caesariensis*. We expect that if we can acquire this bog and restore the site additional rare flora and fauna will be discovered. The pitcher plant population declined from 10 plants in 1990 to 4 plants in 2007. Meadowview intervened in 2007, with landowner permission, to clear a portion of the bog and prevent the extinction of these valuable pitcher plants. Even with that effort two small plants were lost to rot from ongoing succession. In 2009, one of the plants sent up a bloom which was bagged and hand-pollinated. One seed capsule was obtained and this material will be propagated and planted on the 3 acre sphagnum bog (if we can acquire the property) ensuring the preservation of the genotype of the northern most pitcher plant population in Virginia.

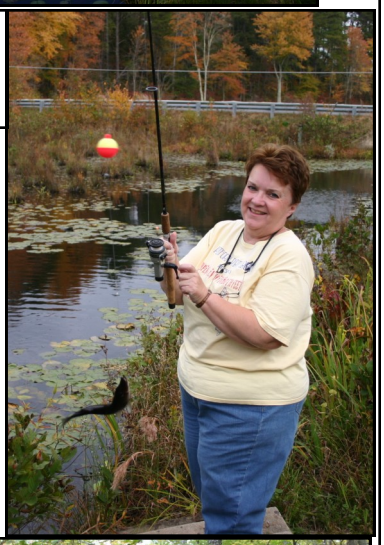
Our long-term goal is to secure more extensive protection of the Meadow Creek watershed. The Bass tract (raw land) has been on the market for some time and the Hall tract (house and land) may become available. As we were writing this newsletter, the Gatewood tract of 13.93 acres came on the market for $110,000. The Gatewood tract is a critical piece of property since headwater springs feeding sphagnum bogs start on this land (the adjoining Latka properties are currently not for sale but may be in the future). The Moon tract includes a large restored colonial house, numerous work sheds, stage coach house, agricultural fields, and beautiful hardwood forest. The Moon house could serve as an excellent headquarters complete with pitcher plant art museum, botanical garden, heirloom crop cultivation on existing agricultural land, and repair shop. We have been curating a series of original and reproduction pitcher plant art. We also have the 21 x 52 foot glass/aluminum Janco greenhouse from historic Berclair Plantation in Fredericksburg, VA in storage waiting for a suitable place to rebuild. We estimate the purchase of the Moon, Bass, Hall, and Gatewood properties will cost around $1,000,000. This is a stretch goal but we are going to start with baby steps by purchasing our first 3 acre preserve in Caroline County at $20,000. We've defined the vision now let's turn it into reality! Please let interested people know about this important preserve plan in Central Virginia and what it can do for the preservation of the pitcher plants, their ecosystem, watershed protection, and public enjoyment.

Central Virginia Preserve Map

Janco greenhouse at Berclair Plantation prior to dismantling.

Meadow Creek Pond

Fishing on Meadow Creek



Sphagnum bog on 3 acres

Northern most native purple pitcher plant site in Virginia.

Trail through pine woods on 3 acre tract.

An Open Letter From A Member

Dear Fellow Members:

Meadowview's Joseph Pines Preserve (101 acres) is unique in the realm of conservation and restoration. The native yellow pitcher plant (*Sarracenia flava*) is almost extinct in Virginia, where it was once abundant in the southeastern portion of the state. Yellow pitcher plant is now thriving in restored bog areas on the Joseph Pines Preserve. These populations were propagated from remnant micro-populations at sites near the Preserve. These last stands of *S. flava* in Virginia have now either been destroyed (today a house sits on one site) or are on the verge of extinction. Also thriving at our preserve are rescued purple pitcher plant, also in grave danger, as well as sundews, orchids and other bog plants to complete the ecosystem. In the upland areas, native long leaf pine (little left in the state) is also being restored. There is no other preserve in Virginia where the restorations described above are being done.

Now Meadowview has the rare opportunity to more than double the size of the Joseph Pines Preserve in Sussex County, VA. The 98-acre Posey tract is now available adjacent to the Preserve. This tract has the same opportunities for bog and upland restoration as its neighbor, the original 101-acre Preserve. On the other side, 36 acres owned by Conservation Forestry is available that would form a buffer between the Preserve and a housing area that has cropped up. The buffer is much needed. But no one is going to donate these lands to Meadowview. The only way to acquire both parcels is through funding raised by member donations. Please join me in donating or pledging whatever you can to help make this dream a realty.

Sincerely,

Jim Robinson

Meadowview Director
Arlington Heights, Illinois

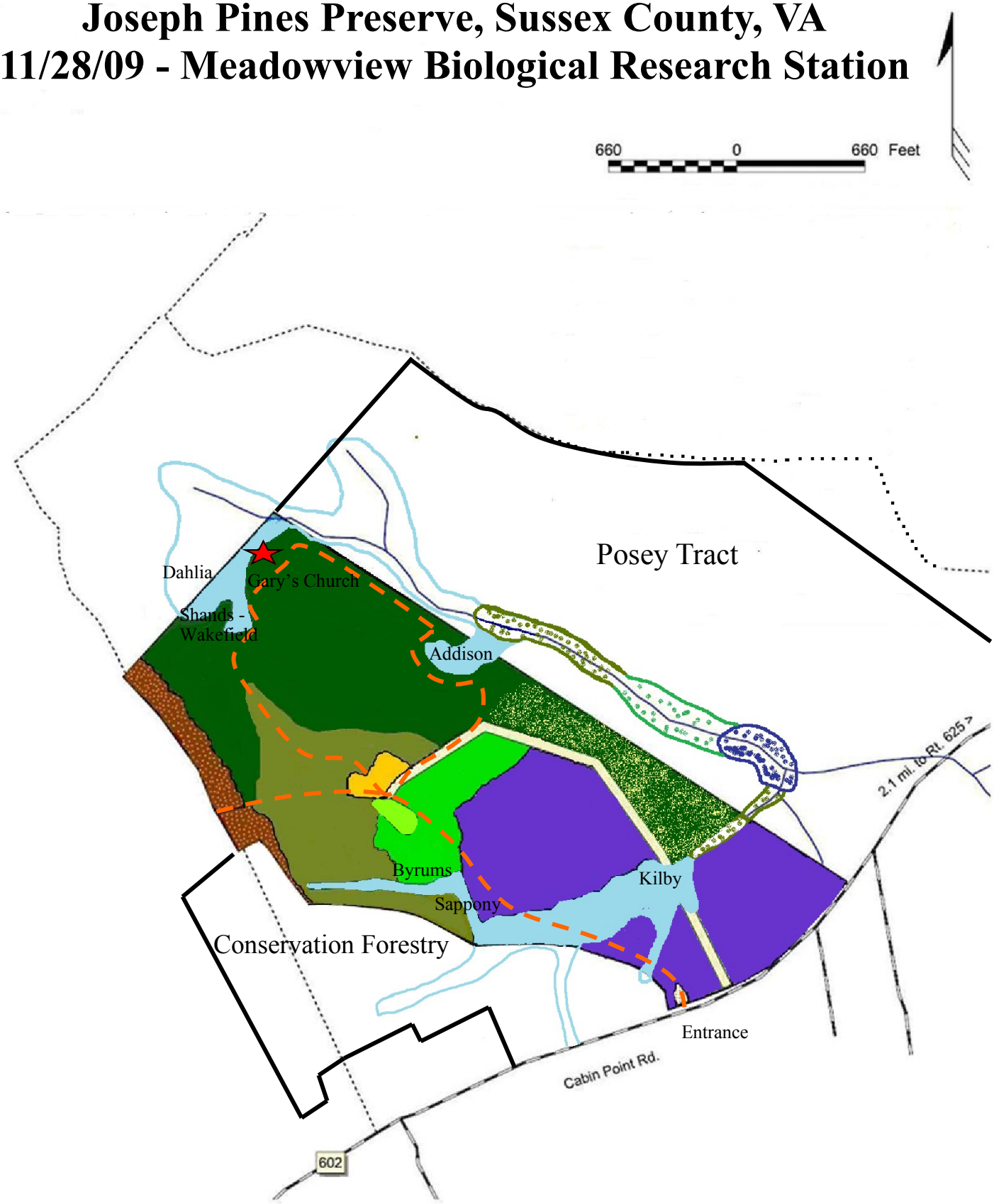
Legend

	Yr. Est.	Acres
Campsite		1.0
Trails and roads		
Turpentine stump		
Powerline		2.6
Stand type and features		
Sphagnous seeps		12.0
Loblolly plantation	1970	27.0
VA Longleaf pine	2001	0.6
VA Longleaf pine	2005	5.9
VA Longleaf pine	2006	14.6
VA Longleaf pine	2009	25.0
Pine Hardwood buffer		4.0
Bamboo swamp		2.0
Cypress swamp		
Beaver pond		
Quail meadow		6.3
Total		101.0

Jim Robinson Biography

Jim Robinson has studied and grown carnivorous plants since 7th grade. He received a B. A. in botany from Southern Ill. Univ. and worked in the nursery business for several years. After earning an M. S. in horticulture from Purdue Univ., Jim became Assistant Director of the Connecticut College Arboretum under Director and world-renowned ecologist, Dr. William A. Niering, during the early 1980s. He then changed careers and became a computer programmer until his retirement in 2001. In addition to his own home gardening, Jim has helped since 1990 with prairie and savanna restoration in the forest preserve near his home in suburban Chicago, Ill. Jim has been a member and contributor to Meadowview since its inception.

Joseph Pines Preserve, Sussex County, VA
11/28/09 - Meadowview Biological Research Station

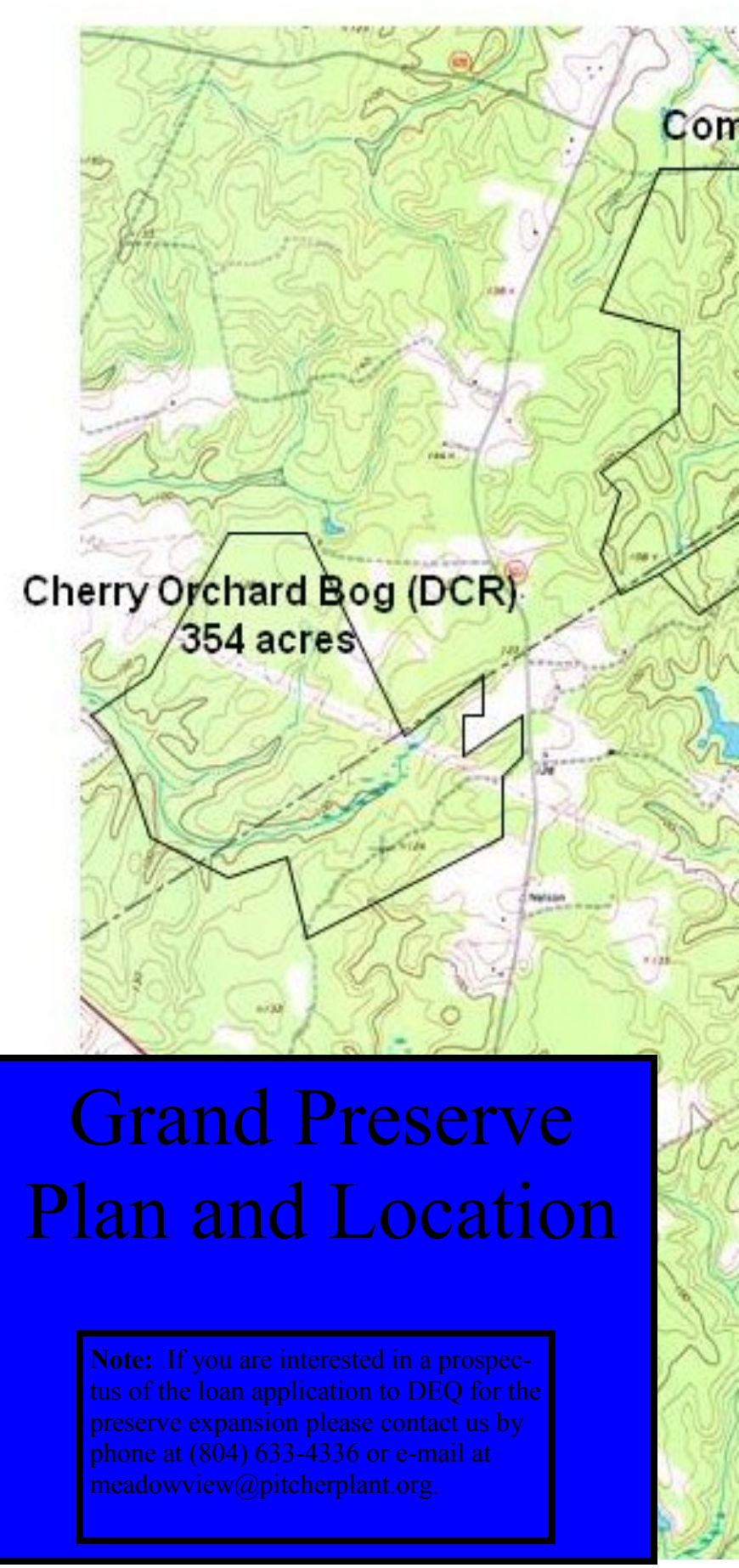


(Joseph Pines continued from page 1)

erty. We have selected the Virginia Department of Forestry as the best candidate to hold an easement which would give us maximum latitude in our restoration efforts.

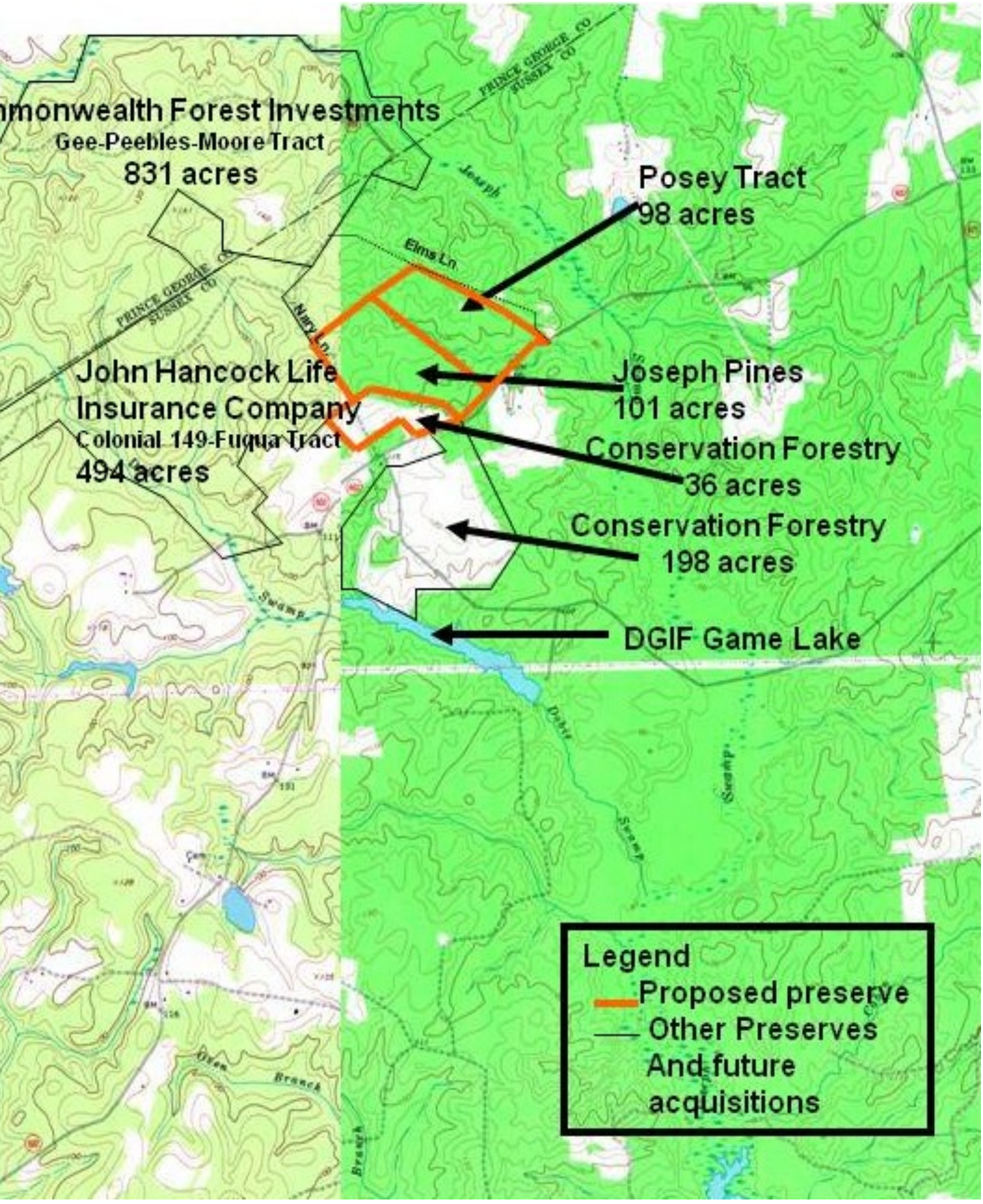
Our next step in the loan process is to obtain approval of the loan by the Virginia Resources Authority (VRA). Meadowview met with VRA in November and they are going to expect the existing note on Joseph Pines paid off (10K), a year of payments on the new loan in escrow (19K), and proven ability to make the payments ($1600/mo). We are confident we can pay off our existing note by the projected settlement date in March, 2010. Accumulating almost $20,000 in a reserve account is a challenge but we think our members and donors can rise to the occasion. We have one donor that has pledged $1000/month to the payment on the new note. We need more donors and pledges to make this important conservation work happen. Please donate and spread the word about what we are doing so we can increase our membership and donor base and acquire these important properties. Consider committing to a monthly pledge for the preserve expansion.

One of the most exciting things about the expansion of the Joseph Pines Preserve is how it fits into a greater grand preserve plan. Meadowview continues to grow and prosper and this allows us to consider a long range conservation plan. Two major properties that adjoin the preserve, John Hancock and Commonwealth Forest Investments, could be purchased along with the remaining portion of the Conservation Forestry tract (adjacent to state land at Game Lake with the endangered black-banded sunfish) leading to the creation of a 1758 acre longleaf pine/pitcher plant preserve. The total current estimated cost to achieve this preserve goal is approximately 4 million dollars. This grand preserve could then connect with additional land purchases to the state preserve at Cherry Orchard Bog. If we can acquire these lands we will have one of the most outstanding preserves in the mid-Atlantic. We have made tremendous progress in land protection and we may one day turn this dream into a reality. We continue to pursue grants and funding to purchase these properties.



Grand Preserve Plan and Location

Note: If you are interested in a prospectus of the loan application to DEQ for the preserve expansion please contact us by phone at (804) 633-4336 or e-mail at meadowview@pitcherplant.org.


mmonwealth Forest Investments
Gee-Peebles-Moore Tract
831 acres
Posey Tract
98 acres
John Hancock Life
Insurance Company
Colonial 149-Fuqua Tract
494 acres
Joseph Pines
101 acres
Conservation Forestry
36 acres
Conservation Forestry
198 acres
DGIF Game Lake
Elms Ln
Nimmy Ln
PRINCE GEORGE CO
SUSSEX CO
Swamp
Legend
Proposed preserve
Other Preserves
And future
acquisitions

Restored Gary's Church Bog at Joseph Pines Preserve

Restored Gary's Church Bog at Joseph Pines Preserve

Letter from the President - Pitchers in Peril!

(Continued from page 2)

Unless we act now by purchasing land to preserve pitcher plant populations, we are facing extinction of these plants in our region. This crisis is highlighted by the fact that pitcher plants are being lost on state preserves with prescribed burns such as the Zuni Pine Barrens in Virginia or the natural gaps at Arden Bog in Maryland.

The loss of almost the entire Arden pitcher plant population is particularly tragic and stresses the need for the mission and role of Meadowview. Arden bog contained over 1000 native state threatened purple pitcher plants and was the largest *S.purpurea* population on the western shore of Maryland and Virginia. The site is also a state natural area specifically purchased because of the pitcher plants and rare associates. Meadowview biologists noticed beaver activity and rising water levels in August 2007 and alerted Maryland Natural Heritage botanists who checked the site in Dec. 2007. They reported no beaver activity despite the fact that local environmentalists were witnessing flooding of the bog. Measures to control the beaver and reduce water levels were not taken until July 2008 by which time almost all the pitcher plants were dead (9 plants were found in 2009). Pitcher plant seed was harvested from the Arden bog by Arlington Echo Outdoor Education Center in Millersville, Maryland and propagated for educational work. However, once the plants reached maturity Maryland Natural Heritage staff instructed them **to throw the plants away**! Fortunately, Arlington Echo shared this valuable germplasm with Meadowview in

Arden bog, Maryland, in 1998. Notice abundance of pitcher plants.

Arden bog, Maryland, August 2008. This is the same location photographed in 1998.

(Continued on page 13)

Letter from the President - Pitchers in Peril!

(Continued from page 12)

2008 and we have a significant portion of this genetic material in *ex-situ* conservation. However, this is no substitute for properly safeguarding natural pitcher plant populations. If the largest native purple pitcher plant population in our region cannot be adequately protected on state land how can we expect these plants to survive on other non-protected sites? We need your help!

The case of Piney Branch bog in Maryland illustrates the powerful impact of succession in eliminating pitcher plants and rare plant associates from habitat. When we originally found the site it was an open powerline right-of-way with a flourishing population of 84 *S. purpurea* and a number of state rare plant species. The Nature Conservancy received a $500,000 award in 2001 to manage the bog and finally in 2009 started to clear the site, which by then had dwindled to 31 spindly pitcher plants. If the Nature Conservancy had not intervened in such a timely manner we would have almost certainly lost this pitcher plant population.

Phil Sheridan at Piney Branch bog, MD in May 1991.

In other cases, succession is eliminating pitcher plants from historical sites where they have persisted for decades. Meadowview rediscovered M.L. Fernald's Coddyshore bog in 1985 and found 30 pitcher plants. The entire population was extirpated by 2007 because of succession and changing land use practices.

Piney Branch bog, October 2009. Note Bill Sipple in overgrown bog at left.

The following graph shows how all of

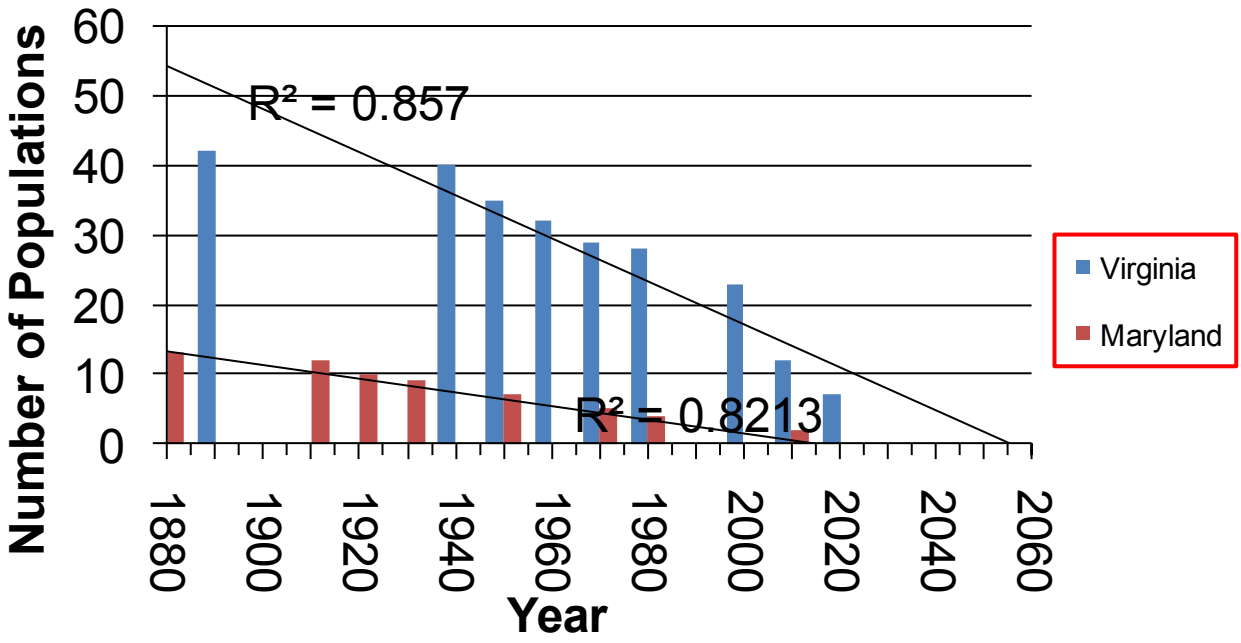
Coddyshore bog, left 2007, right 1985.

(Continued on page 14)

Letter from the President - Pitchers in Peril!

(Continued from page 13)

these factors (succession, beaver flooding, mismanagement, etc.) are leading to extinction of our native pitcher plant populations. The predicted extirpation date (2055) for *S. purpurea* in Virginia is extremely conservative and does not account for the acceleration caused by the current extinction vortex. Therefore, *S. purpurea* extirpation in Virginia could occur as soon as 2030.



Virginia, District of Columbia, and western shore Maryland *Sarracenia purpurea* L., purple pitcher plant, regional population extirpation prediction.

Nick Haywood watering Arden pitcher plants.

These examples show a great need for Meadowview and its mission to preserve, protect, and restore the native pitcher plant populations and their associated ecosystems in Maryland and Virginia. The question then becomes: What have we done and what are we going to do to prevent this extinction crisis?

First, we continue to obtain propagules from dwindling pitcher plant populations for *ex-situ* conservation. This effort has already prevented the loss of all Virginia *S. flava* populations and most, but not all, purple pitcher plant populations in Virginia and Maryland. Second, we work with landowners that have native pitcher plant populations and educate them to the value of their plants and prescribe appropriate site management. Third, we are aggressively pursuing our long term plan of owning a series of managed pitcher plant bog preserves. From the few examples shown, it is clear that without site

(Continued on page 15)

Letter from the President - Pitchers in Peril!

(Continued from page 14)

Purple pitcher plant from Coddyshore (leaves, above) and Wakefield (flowers, right) at Joseph Pines Preserve.

control most of our native pitcher plant populations will become extinct. Meadowview has been successful in re-establishing a number of southern Virginia pitcher plant populations in discrete bogs on the Joseph Pines Preserve with flowering, seed set, and successful regeneration. This work has been done within the context of restoring authentic plant communities utilizing local, and in most cases rare, genotypes. We need more land at the preserve to accommodate additional populations and we separate preserves to maintain the identity of the central Virginia and Maryland pitcher plant genotypes. Fourth, we are laying the groundwork to endow Meadowview with the financial wherewithal to sustain this effort long-term. We are training the next generation and are recruiting senior talent to manage our organization. Please join me in achieving the noble goal of preventing extinction of the pitcher plant community and associated ecosystems. Imagine the thrill of future generations when they see, study, smell, and wander through the woods and bogs of large-scale restored pitcher plant ecosystems.

Sincerely,

Phil Sheridan

Director and President

"Indeed, it has been quite a pleasure to have experienced and studied these [bogs and cedar swamps] *ecologically significant sites. Local and State governments should immediately institute a truly effective effort, perhaps acquisition, including appropriate buffer areas, to preserve their natural integrity. Indeed, I am convinced that society should demand it."* Bill Sipple, Days Afield. 1999. Gateway Press, Inc.

Upcoming Events

- January - New 2010 plant catalog
- March - Joseph Pines camping, exploring, and restoration work
- March - Stewart McPherson lecture series
- June - Joseph Pines tour

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