

Draft

The mission of the Huyck Preserve is to preserve the natural beauty of the Rensselaerville Falls, the watershed of Lake Myosotis and surrounding lands, to conduct long-term research on natural systems as part of a global effort to understand and protect the Earth's biodiversity, and to increase appreciation of this effort through innovative, field-based educational programs for students, teachers and the community.

Vision Statement

The Huyck Preserve is a nationally recognized organization committed to the long-term protection of the Earth's regional and global biodiversity. This will be accomplished through high-quality land preservation, biological research, and environmental education programs.

Introduction

The Edmund Niles Huyck Preserve Long-Term Plan provides a guiding framework for the activities on and management of the Preserve and Biological Research Station. This document is the result of an analysis of past activities and a strategic planning session of the Board of Directors and Staff in 1999 and 2000. In 1991 the Board approved a long-term plan with the expectation that that plan would be updated after ten years. This document represents that update. It begins with a brief overview of the accomplishments over the last ten years based on the 1991 long-term plan. It then sets out new goals and challenges for the next ten years. The document contains sections on land preservation and stewardship, research, education, finance, development, community relations and the facilities and grounds. The Board of Directors voted to adopt the plan on _____. It is anticipated that the plan will be updated in ten years.

Background

The Preserve was incorporated as a non-profit, membership corporation in Albany in 1931 in order "... to preserve the natural beauty of the Rensselaerville Falls, Lake Myosotis, Lincoln Pond and the land around them..., to increase the general knowledge and love of nature, particularly that of trees and wildlife, by maintaining a demonstration of reforestation and forest culture, and by providing means for increasing and protecting the birds, wild animals and fish within the boundaries of said land." In 1960 following the death of Mrs. E.N. Huyck, and as she bequeathed, the E. N. Huyck Foundation was established "... to promote research, scientific study and education in any and all kinds of fauna and flora, either directly or through individuals or organizations qualified to undertake such work."

The uniqueness of the Edmund Niles Huyck Preserve and its Biological Research Station are its size and long-term research record. The Preserve is now nearly 2000 acres and since 1937, 300 researchers have conducted 350 projects and published over 300 scientific papers. Because the larger and obvious fauna and flora of the Preserve have been inventoried since 1937, and for many taxonomic categories these inventories have been updated periodically, this data base can be used to evaluate changes that may be occurring due to environmental disturbances such as climatic variations, pollution and species introductions. However much work remains to be done on the smaller and inconspicuous flora and fauna.

The original land included some 500 acres that have been undisturbed since about 1890. Since 1931 another 1500 acres have been added. The Biological Research Station was organized in 1938. The Preserve is located on western edge of the Helderberg Plateau (42° 10' lat., 74° 10' long.) in the Towns of Rensselaerville and Berne, New York.

Below are brief statements that frame each major area of the Preserve's operations and interest. The recommendations and goals are from strategic planning workshop and meetings during 1999-2000.

Land Preservation

A primary purpose of the Preserve is to protect the Ten Mile Creek watershed, in recognition of the value of preservation, in and of itself, and so as to provide an undisturbed, undeveloped area for scientific research, environmental education, and recreation. The overall stewardship philosophy guiding the management of the Preserve is, therefore, "leave it alone."

Habitat diversity is important and may require active management. Examples could include the mowing of hay fields to maintain open areas. The Board recognizes the concept of management zones, that is areas where specific uses dominate or even exclude other uses. For example wetland areas may be passively managed for research, watershed protection and light recreation (hiking, bird watching).

The Board further recognizes the fundamental difference between natural areas and the man-made features of the Preserve including Lake Myosotis, Lincoln Pond, conifer plantations, trails, and roads. Manipulation of these areas may be deemed appropriate, and more flexibility is called for than in other areas. In keeping with the character of the Preserve and in respect of the watershed it is the policy of the Board to oppose those activities deemed to adversely affect water quality.

Income generating activity that is profitable and enhances other objectives should be pursued. However, the Preserve will not pursue income from land or raw material development. Service (education, boarding) opportunities designed to cover cost may be developed. Such proposals will be entertained by the Board with the advice of the Scientific Advisory committee on a case-by-case basis, but such proposals will be rejected if found to detract from the Preserve's purposes of watershed protection and research.

The Board with the advice of the Scientific Advisory Committee will accept research proposals that avoid large-scale, significant alteration to existing ecosystems. Restoration of extirpated species would be permitted.

Zones of Interest

The watershed of Lake Myosotis is approximately six square miles (4000 acres) of which the Preserve now owns about three square miles (2000 acres). A long-term goal of the Preserve is to protect, through acquisition or conservation easement, at least two-thirds of the watershed of Lake Myosotis. This land represents the Preserve's primary zone of interest.

The secondary zone of interest is the watershed of Ten-Mile Creek below the hamlet, and any property adjoining the existing land area. The Preserve would like to selectively expand into these areas, through acquisition or easement, in order to protect the existing area from encroachment (i.e. provide a buffer zone), to provide additional wildlife habitat, and to acquire access to unique research areas.

Tertiary zones of interest are areas outside the primary and secondary zones. The Preserve will accept only donations of property outside these zones, and only for purposes consistent with the Preserve's objectives of preservation, research, education and recreation, and only if the properties management does not create a financial burden.

Recognizing its resource limitations, the Board will seek to cooperate with other like-minded organizations, private and public, as a means to achieve its stewardship objectives.

Committee Goals

1. Separate Land Conservation and Facilities and Grounds into two committees.
2. Develop an action plan for the Conservation committee.
3. Update the map showing the Preserve and zones of interest.

Research

The Preserve supports research into behavior, ecology, evolution, natural history, systematics and other areas in the natural sciences in order to increase our understanding of the workings and significance of natural systems. Much of this research is focused on the plants and animals of the Preserve but nonetheless contributes to a global view of how natural systems work and of humankind's role in those systems. Both monitoring and experimental work are supported. Current emphasis is on forest biology and the effects of anthropogenic and natural environmental change on detritus food webs, but other endeavors are recognized as being equally important.

Our vision for research is to be a world class field station used by top scientists and a training ground for future generations of scientists where monitoring and research lead to a fuller understanding of ecosystem processes and biodiversity.

General Research Activities

Each year the Preserve awards research grants to scientists from throughout the country to conduct studies of the biology of the flora and fauna of the Preserve. Grant applications are reviewed by the Scientific Advisory Committee (SAC) and awards are based on scientific merit. It is the current belief of the SAC that the Preserve should not try to direct the kind of research being conducted by grantees. However this does not preclude the Preserve from initiating its own focused studies as needs arise. These latter studies may be funded through special grant activities or they may be conducted by staff.

From 1937 through 2000, 300 scientists have conducted about 350 research projects on the Huyck Preserve through its Biological Research Station. These scientists have published over 300 papers and submitted an additional 150 final reports (Wyman 1988). Earlier work focused on the documentation of the biota on the Preserve and on studies of the natural history of that biota. The Preserve maintains an inventory of the plants and animals observed or collected on its lands.

More recent activities have focused on the patterns and processes of the hardwood-hemlock forest, the dynamics of decomposition processes, and the structure of the detritus-based food web of four forest types. In addition, many workers continue to study the behavioral and physiological ecology of the animals on the Preserve. Periodic studies also occur and are encouraged of the water quality of the streams and lakes on the Preserve and on biological processes of these waterways.

Current Long-Term Research

One of the purposes of biological field stations is to provide baseline data about the kinds and densities of organisms present and on basic ecosystem processes (e.g. primary and secondary productivity). These data may be used to monitor long-term changes.

The National Science Foundation held a conference in 1977, at Woods Hole, to determine the kinds of data that were important in long-term monitoring programs. Their recommendations are summarized in Table 2, which includes comments describing the Preserve's status.

Research Goals

1. Evaluate the current research program and develop a course of action for the future.
2. Diversify user base and research topics covered.
3. Continue to move toward the monitoring recommended by the National Science Foundation.

4. Continue to support staff research
5. Develop new projects to respond to NSF initiatives e.g. Biocomplexity, NEON, etc.
6. Increase current grant program to include grants for established researchers
6. Continue to develop the International Organization of Biological Research Stations

Education

Another of the missions of the Preserve is to "increase the general knowledge and love of nature." The Preserve's education vision is to provide to the public an appreciation and understanding of how the natural world functions, using scientific field research as our focus, in engaging and innovative ways.

The Huyck Preserve currently offers a variety of educational activities for elementary and high school students, for undergraduate and graduate students, and for adults. These are particularly important activities when concerted actions are required from an informed public. Each year between 1000 and 1500 students visited the Preserve and participated in one of the activities described below.

Nature Study is a six-week, summertime activity that brings children (ages 5 to 11) into contact with nature on the Preserve in a stimulating yet informal way.

Environmental Awareness Day Camp is a multidisciplinary week long nature experience for junior high school students held in August. It includes one overnight stay on the Preserve.

Environmental Science Day Camp focuses on environmental science techniques and experiments in the field. Junior high school students participate for a week in August. Students devise their own experiments, conduct field research and work up their results.

Huyck Hikes are held during the late spring through early fall. Researchers in residence take community members on hikes to their research sites and describe the purpose and significance of their work.

Visit a Field Station. This program introduces elementary children to a biological field station. Students learn basic field techniques and go on a hike.

Minds-On programs are offered in conjunction with the Rensselaerville Institute. These are daylong workshops that involve junior high and high school students in the study of science. Minds on are currently focusing on 1) scientific methods, 2) tracking change, and 3) acid rain and salamanders, and 4) art and nature.

Teacher Workshops give teachers hands on experience in teaching inquiry-based science. These are at times conducted in conjunction with the GLOBE Program and BOCES.

Special School Programs are designed to meet the needs of individual school districts. Currently the Preserve is working with sixth grade classes at the Arbor Hill Elementary School of Albany (supported in part with a grant from the Bender Foundation) and the Montessori Magnet School.

Internships are offered to high school and college students so that they acquire hands-on experience in field research and the operations of a biological research station.

The Annual Science Symposium is held each summer at the Eldridge Research Center. Scientists present seminars that synthesize the results of their current research on the Preserve.

The Capital District Biodiversity Group is a consortium of Capital District institutions whose goal is to offer

graduate level training in conservation biology and policy. The Preserve is a member of the group and makes its facilities available for research to the groups' students.

Undergraduate Education is fostered on the Preserve through the use of its facilities by college classes for laboratory exercises in field biology. Also the Preserve's staff teach college courses on an as needed basis at area educational institutions.

Graduate Education occurs on the Preserve in the form of research conducted by candidates for advanced degrees. Many of these young researchers are supported with Huyck Preserve Research Grants. In addition, undergraduate and graduate students are hired as research assistants and gain valuable experience with the hands on operation of a biological research station.

The Preserve's Library maintains a collection of about 200 books and receives about 20 journals annually. This literature is available to researchers and the public, Publications produced by the Preserve include a periodic newsletter, annual reports and occasional papers. Newsletters are distributed to members of the Preserve and annual reports and occasional papers are distributed to members of the Organization of Biological Field Stations. The Preserve's staff also publishes books for the general public. In addition the Preserve's staff and visiting researchers publish results of their work in the scientific literature.

Education Goals

1. Appoint two new board members with education background.
2. Hold a retreat to evaluate and refine our educational program.
3. Assess carrying capacity and impact of education programs.
4. Conduct a college course. This will be coordinated through the Research Committee.

Community Relations

The Preserve provides a variety of services to the community in both, a local and global sense. People who live within a two-mile radius of Lake Myosotis may swim in the Lake on a permit basis subject to NYS Health Department regulations. Swimming lessons also are provided. The trails are open to anyone and Lake Myosotis is open for boating and fishing. The Preserve also maintains some of the upper Ten-Mile Creek watershed in a semi-pristine setting so that Lake Myosotis may continue to provide potable water.

The Preserve also offers a variety of educational activities for youth and adults to inform the community about its activities. The Annual Science Symposium provides an opportunity for members of the community to learn about the research activity on the Preserve. Through its publications the Preserve informs the larger scientific community about its work.

Public/Community Relations Goals

1. Determine and maintain carrying capacity of trails.
2. Upgrade and promote Nature Study and Huyck Hikes.
3. Bring trails and bridges up to appropriate condition.
4. Conduct educational and family-centered events for community.
5. Promote Preserve to wider community

Administration

The Preserve is governed by a 21-member Board of Directors elected by the membership to three-year terms

and with an Executive Committee composed of the Chairperson, President, Executive Vice President, Vice President, Treasurer and Secretary. The Executive Director manages the day-to-day operations of the Preserve. Full-time employees include the executive director, supervisor of grounds and buildings, laboratory supervisor and data manager. Part time/temporary employees include a ¾ time office assistant, research, education and maintenance assistants, and lifeguards. There is a seven-member Scientific Advisory Committee that advises on the Preserve's research and grants programs and on stewardship practices.

Other committees of the Board include the Nominating Committee, Finance, Committee, Development Committee, Administration Committee, Program Committee, Public Relations Committee, and a Buildings and Grounds Committee. Three other committees work with the Executive Director. The Lake Committee helps to organize the annual Lake Program and functions to supervise the swimming area. The Organizational Prior Approval Committee was established in response to the National Science Foundation requirement to have budget changes reviewed by such an in house committee. It consists of the President, Treasurer and Executive Director of the Preserve.

The staff of the Preserve is responsible for the preparation of budgets and plans, and reconciles actual expenses to proposed budgets. It also conducts membership drives yearly with the Board, and identifies appropriate foundations and coordinates staff/Board approaches to those foundations. The staff also prepares proposals to funding agencies. The staff functions as the liaison with the Preserve's bookkeeper/accountant. The staff should coordinate fundraising events, maintain contact with a wide variety of funding agencies and individuals. Staff should also monitor lands within the Preserve's zones of interest with an eye toward acquiring or otherwise preserving those lands. The staff maintains and preserves the land of the Preserve. The staff conducts research and publishes the findings on the biology of the Preserve and coordinates the activities of visiting scientists.

The Board is responsible for fiscal oversight, expenditures, revenue generation and purchasing sale, lease and rental of real property. The Board and the staff are jointly responsible for increasing membership, working with foundations, and soliciting from individual donors. They also provide liaison with other organizations. The Board is also responsible to help set goals and objectives. The Board and staff jointly coordinate public relation activities.

Administration Goals

1. Establish a National Advisory Council.
2. Improve communications among Board and Staff.
3. Improve Board development process.
4. Improve Committee Structure.
5. Clarify administrative procedures among Staff and the Executive and Board
6. Prepare board notebook for all board members
7. Orientation for new board members.
8. Update and retype bylaws.
9. Revamp committees if necessary and clearly define roles.

Finance

In order to fulfill its purposes the Preserve seeks to establish and maintain financial stability. The Board should seek to expand current operations in pursuit of the goals and objectives outlined above while remaining fiscally responsible. Operating and capital budgets are financed through foundation grants, membership, rent, sales, and endowment funds.

Finance goals

1. Develop budgets to fund specific activities that will move the organization towards accomplishing vision and goals.
2. Continue to improve financial reporting process.
3. Staff will work with the Board finance committee and the Preserve accountant.
4. Complete rules and guidelines for recording revenue and expenses, including guidelines for budgeting and allocating revenue across various departments.

Development

The development committee is a new committee whose goal is to increase giving from members, individuals, companies and institutions.

Development goals

1. Develop a major giving program
2. Develop a planned giving program
3. Expand membership base
4. Establish process for corporate fundraising.
5. Establishing a philanthropic grants program.

Nomination

The nomination committee is responsible for nominating people to become a member of the Board of Directors. This normally occur at the June membership meeting but may occur at other times when seats need to be filled.

Nominating goals

- 1. Identify skills/experience needed to strengthen board**
- 2. Develop pool of candidates for nomination to the board**
- 3. Develop protocol for recruitment and orientation for new board members**

Facilities and Grounds/Land Conservation

In order to fulfill its purposes of preservation, research, education, and recreation within its community, the Preserve maintains a physical plant made up of buildings, dams, vehicles and equipment, and an extensive system of trails.

There are eight significant buildings with more than 10,000 square feet of space located on the Preserve (Table 4). Potential housing capacity for twenty researchers exists during the summer months and eight during the winter. All buildings that are currently being heated were subject to an energy audit by Cornell Cooperative Extension.

Mill House – The Mill House holds the office of the Preserve. Office equipment includes personal computers and fax, photocopying machine. Preserve records, maps, and data are stored in the Mill House and in the Eldridge Lab. There is a two-bedroom apartment that is rented as a source of income for the Preserve. The Mill House could sleep four researchers should the need arise and other income would need to be generated to replace the loss (\$5400/year).

Lincoln Pond Cottage – Lincoln Pond Cottage (built ca. 1790), is used to house visiting scientists. It is a two-story, four-bedroom cottage and has a complete kitchen and two bathroom facilities. This building was refurbished and winterized during 1988 and 1989.

Bull Frog Camp Complex - Bull Frog Camp Complex, located on the west shore of Lincoln Pond, is composed of five buildings. Three buildings can be used to house researchers during warmer months. The main building sleeps five to six and has a complete kitchen and three bathrooms. There are also two small cabins that sleep two each and have small bathrooms. There is also a small stable that has been used as a laboratory space for projects that do not require environmental control. The last building is a small garage that is used as storage. This complex is being refurbished as of this writing with the help of a NSF grant.

Davis Cottage (Lakeside Laboratory) - Davis Cottage was erected by the Preserve in 1948 as a summer residence. The building is one-room frame building. It is located on the east shore of Lake Myosotis. The building is not heated and has no plumbing. In 1990 the building began to be used as an educational center - The Jessie Huyck Nature Center.

Ordway House - Ordway House is located on Pond Hill Road northeast of Lake Myosotis. The house is divided into two apartments. One has five rooms and is the home of the Executive Director and Biologist. The second has one bedroom and is used for visiting researchers. The house is completely winterized.

Eldridge Research Center - The Eldridge Research Center is laboratory and conference center. Laboratories have modular cabinets and chemical resistant bench top surfaces. There are three dry labs is equipped with microscopes, analytical balances, a constant temperature chamber, centrifuge, autoclave, assorted glassware, and aquatic sampling gear. The Eldridge Research Laboratory includes an auditorium that holds a maximum of 75. There is an education room that seat about 25 students. There are also a small library, and a specimen reference collection area. The laboratory was enlarged and refurbished between 1996 and 1998 with the help of a NSF grant.

Preserve's Shop and Barn - The Preserve's shop is located in a large three-story barn behind the Ordway House. It contains modern tools and supplies for carpentry, plumbing, building maintenance and landscaping.

The Dam and Spillway - The spillway of the dam on Lake Myosotis has been recently repaired and currently meets the U.S. Army Corp of Engineers dam safety standards.

Vehicles and Equipment - The Preserve owns a farm tractor, a riding mower, and a one-half ton pick-up truck. The pickup truck was replaced in 1990.

Trails - The Preserve maintains about ten-miles of hiking trails. These include a three mile trail around Lake Myosotis, a one-mile trail around Lincoln Pond, a two mile trail through several pine plantations behind the Ordway House, and the Cooley Nature Study Trail.

Facilities and Grounds/Land Conservation Goals

1. Develop a ten-year maintenance plan,
2. Finalize the land-use plan
3. Establish a trail use/abuse evaluation system
4. Repair dam on Lincoln Pond
5. Separate Land Conservation and Facilities and Grounds into two committees
6. Develop an action plan for the Conservation committee
7. Evaluate the Jesse Huyck Center for better usage
8. Create a housing plan to standardize the conditions and furnishings in each building
9. Create a centralized visitor's center

APPENDIX 1

Executive Summary of the 1991 Long Term Plan

After extensive evaluations and discussions in 1990 and 1991 the the Edmund Niles Huyck Preserve's adopted a long-term plan. In that plan the Board of Directors recognized that the Preserve's purposes are the protection of Ten-Mile Creek watershed, research, education, and recreation. The Preserve has a long and distinguished record of research, environmental education, and service to the community. To continue to provide these services and to allow for necessary growth the plan set out recommendations that are paraphrased here by subheadings found in the text. Brief comments on the status of each undertaking are included.

Stewardship and Preservation

1. The Board should consider protecting by means of acquisition, easement, cooperative management agreement or other appropriate device about two-thirds of the watershed of Lake Myosotis. Over the last 15 years the Preserve has acquired about 300 acres bringing the total to 2000 acres.
2. The Preserve should continue to document basic ecosystem data and prepare a vegetation map that identifies dominant and unique habitats. A few basic ecosystem processes are monitored and a vegetation map has been prepared.
3. Habitat diversity may have to be actively maintained in some instances. Two hays field are mowed periodically to maintained open space.
4. The Preserve should establish a dedicated fund for the acquisition of land and/or easement. The Preserve has received some grant monies to help with land acquisition but no permanent fund has been established.
5. The Board will make decisions about the Preserve in light of stewardship principles.
6. The land uses master plan should be finalized. This has not been done.
7. The Board may sell land in the secondary or tertiary areas to finance purchase of land in the primary zone.

Research

1. The Board should evaluate the addition of a new laboratory building or addition to existing structures to increase space for research activities. This was done and a grant from the National Science Foundation has resulted in a completely refurbished Eldridge Research Center.
2. The Scientific Advisory Committee recommends that the Preserve make every attempt to conduct appropriate long-term monitoring of basic ecosystem processes. We currently monitor tree growth in four permanent plots, flying insect populations, animals collected by pitfall traps, and amphibian populations. Most populations of organisms are not monitored.
3. It is recognized additional staff is needed to conduct the long-term monitoring activities.
4. The funds available for the research grant program should be increased periodically. This has not been accomplished.
5. The Preserve should determine the feasibility of establishing a Huyck Fellowship to support a Ph.D. student working on some aspect of the biology of the Preserve. This has not been accomplished.
6. Preserve should establish a permanent grid of markers. Because of the advent of global positioning system a grid system is no longer necessary.
7. The Preserve should continue to interact and develop programs with like-minded organizations. These activities are on going.

Education

1. The Preserve should determine the carrying capacity of its lands for educational activities. This has not been accomplished.
2. The Preserve should seek to develop a mechanism that will allow graduate students to pursue research under the guidance of the Preserve's professional staff. Preserve staff has mentored a few graduate students but funding depends on the receipt of outside grants.
3. The Preserve should determine the feasibility of providing facilities so that college level courses can be taught in their entirety on the Preserve. Another NSF grant has recently been received and the Bullfrog Camp Complex is currently being prepared for this kind of use. A class on ecological field techniques is planned for the summer of 2001.
4. Additional space should be provided to maintain the library holdings. The addition to the Eldridge Research Center provided extra library space.

Recreation

1. A study of the recreational usage of the Preserve should be undertaken with special attention to documenting current use and abuse. This has been done in part through the survey of visitors visiting the falls trail. Some 3000 visitors visit the falls each year.

Community Relations

1. **The Preserve should continue to explore ways to increase community understanding and appreciation of the Preserve.**
2. Events and activities aimed at informing the community about the Preserve should occur periodically. We now have monthly events in the winter and many events in the spring, summer and fall.

3. A special fund raising event should be planned on an annual basis. We have held a fund raising event in each of the last six years.

Finance

1. The Preserve should continue to work closely with the Huyck Foundation to develop long-range financial plans.

2. The Preserve should seek to increase the size of the membership. Membership has been increased from about 170 members in 1990 to 270 in 2000.

3. The Board and staff should undertake capital and operating fund campaigns. A capital campaign is currently underway.

4. The Board should periodically review the management and purposes of its endowment funds. This has been done periodically and is currently being reevaluated.

5. The Board should establish one additional permanent committee: Finance/Development Committee. This was accomplished.

Administration

1. The Preserve should continue to evaluate its administrative operations to assure that the best procedures are being followed. This is ongoing.

2. Staff should periodically recommended changes in administrative structure that may better serve the purposes of the Preserve. This is ongoing.

Physical Plant

1. Bull Frog Camp should be renovated. A NSF grant has resulted in Bullfrog Camp being upgraded.

2. Bird House Cottage should be upgraded to better function as a living space. Bird House cottage was refurbished in 1994.

3. The Horse Cabin should be renovated. The NSF grant should result in the Horse Cabin being renovated.

4. The Horse Stable should be converted into a small seasonal laboratory. The NSF grant should result in this cabin being converted into a two apartments.

5. The Mi11 House should have renovations recommended by a recent energy audit. This was done in 1998.

6. Trails should be maintained and a plan developed to protect the trails around the falls. The Adirondack Mountain Club was consulted and a plan developed. The lower trails were refurbished in 2000 with the help of volunteers from England.

7. The dam on Lake Myosotis should be upgraded to meet current safety standards. The dam was upgraded in 1994 and 1995.