

Appendix F.

Education and Outreach Plan for the Albany Pine Bush Preserve

Education and Outreach Plan for the Albany Pine Bush Preserve

Albany, NY
2010 - 2015



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Introduction

Education and Outreach at the Albany Pine Bush Preserve

Education and outreach are integral components of the Albany Pine Bush Preserve

Commission's mission: To protect and manage the unique and endangered natural communities of the Albany Pine Bush for ecological, recreational and educational benefits.

A comprehensive education program can provide the mechanism by which public support for the Albany Pine Bush, its species, natural communities, protection and management is fostered based on the idea that people are more likely to support what they know and understand.

In addition to supporting the protection and management of the Albany Pine Bush, education and outreach also provide a significant public benefit. Public benefits of the Discovery Center and the Education and Outreach program include education, outdoor and indoor recreation, "edutainment", exercise, and community participation in a local project.

The Commission believes in a balanced approach to this mission that takes into account the positions and recommendations of its members and input from property owners, interest groups, and the general public.

The Education Outreach Plan provides a guiding framework for the education and outreach programs of the Albany Pine Bush Preserve Commission. The specific departments that this plan supports are:

- The Education Program
- Outreach and Communications
- Albany Pine Bush Discovery Center

Goal of the Education Outreach Plan

The goal of the Albany Pine Bush Preserve Commission Education Outreach Plan is to guide and provide a vision for the education and outreach programs of the Albany Pine Bush Preserve Commission (APBPC). The plan is comprehensive and multifaceted, covering all aspects of education and outreach undertaken by the APBPC. Actions of the education and outreach staff should comply with the Education Outreach Plan.

Objectives of the Education/Outreach Program

1. Cognitive:
 - a.) Increase the visibility of the Pine Bush Preserve, creating a greater public awareness of the Albany Pine Bush ecosystem, its ecology, natural and cultural history and unique and endangered status.

- b.) Increase understanding of ecological management techniques (prescribed fire, mechanical and chemical management techniques, restoration of native species) and how they are used to restore and maintain the Pine Bush ecosystem.
 - c.) Increase understanding of the use of science to guide the ecological management .
 - d.) Raise awareness of how people can responsibly use the Albany Pine Bush Preserve for educational and passive, non-motorized recreational purposes.
2. Behavioral:
- a.) Increase public participation in stewardship and conservation of the Pine Bush Preserve.
 - b.) Motivate public to actively support conservation of the Pine Bush in ways other than volunteering.
 - c.) Adherence to Pine Bush Preserve rules and regulations.
 - d.) Visit the Albany Pine Bush Discovery Center facility and attend education programs.
 - e.) Expose visitors to new methods of physical activity to support a healthy life style.
3. Affective:
- a.) Foster an appreciation for the Pine Bush among residents of the Capital District Region and beyond.
 - b.) Foster an ethic of care for the Albany Pine Bush among residents of the Capital District Region and beyond.
 - c.) Develop a personal connection between people and the Albany Pine Bush ecosystem.
 - d.) Instill a sense of wonder and desire to learn more among visitors to the Pine Bush Preserve and Discovery Center.
 - e.) Make the Pine Bush a place people want to come back to.

How do we do it?

How do we communicate the message of the Albany Pine Bush? What resources and techniques do we use to reach our audience? Who is our audience? Using the “Principles of Interpretation” established by Freeman Tilden, New York State and Federal Learning Standards, the Guidelines for Excellence established by the North American Association for Environmental Education and No Child Left Inside legislation as a guide, the Albany Pine Bush Preserve Commission’s education outreach program incorporates a variety of techniques to reach a diversity of audiences.

Key Themes to be Interpreted

The themes interpreted in all education and outreach conducted by the Albany Pine Bush Preserve Commission should relate in some way to the biology, ecology, natural history, geology, cultural history, management or other aspect of the Albany Pine Bush. It is the goal of the education and outreach programs to raise awareness of the Albany Pine Bush. The following are key themes, outlined to guide educational programming.

1. The Albany Pine Bush represents one of the best remaining examples of an inland pine barrens ecosystem left in the world.
2. The Albany Pine Bush ecosystem is home to two rare communities and over 45 Species of Greatest Conservation Need within NYS including the Karner blue butterfly, a federally endangered species.
3. General environmental and cultural knowledge is an important foundation for understanding the complexity of the Pine Bush
4. The Pine Bush is an important habitat for a diversity of living things including plants, insects, mammals, birds, amphibians and reptiles, fungi, and much more.
5. The Pine Bush ecosystem is maintained by periodic fires, which serve to rejuvenate the natural community, stimulate growth in fire dependent species, suppress exotic plant species and increase food and habitat for animals native to the Pine Bush.
6. The largest threats to the survival of the Albany Pine Bush are loss of habitat to poorly planned development, habitat fragmentation, the exclusion of fires, encroachment of invasive species and over use/improper use of the Preserve. Today less than one quarter of the original land area of the Pine Bush remains.
7. The Albany Pine Bush Preserve Commission was created by the NYS Legislature in 1988 to protect and manage the unique and endangered natural communities and species of the Albany Pine Bush for ecological, recreational and educational purposes. The Commission is a cooperative effort made up of the New York State Department of Environmental Conservation, NYS Office of Parks Recreation and Historic Preservation, The Nature Conservancy, Albany County, City of Albany, Towns of Guilderland and Colonie and four private citizens.
8. History of the Pine Bush
 - a.) glacial
 - b.) ecological
 - c.) human use
9. Due to human pressures on the Pine Bush ecosystem (including exclusion of fire, habitat loss and fragmentation) ecological management is necessary to restore and maintain this inland pine barrens. Several management techniques are currently being used to restore and maintain the Albany Pine Bush:
 - a.) Fire management – maintain and restore pine barrens as well as reduce potential for catastrophic wildfire
 - b.) Mechanical management: mowing (hydro-axe), aspen girdling, invasive species removal including large scale clearing of black locust, and “clip and drip” method of clearing black locust sprouts.
 - c.) Chemical management: chemical management of black locust and use of herbicides on other species in the Pine Bush.

- d.) Restoring native plant species
 - e.) Wildlife management techniques including regular monitoring, captive release and hunting.
10. Current human uses of the Albany Pine Bush Preserve
- a.) passive, non-motorized recreation
 - b.) education
 - c.) hunting, fishing and trapping
 - d.) research
 - e.) archeology
11. Appropriate and responsible use of the Preserve will help prevent further degradation of the Pine Bush ecosystem. The APBP Rules and Regulations detail these appropriate and responsible uses.

Target Audience

The audience is the individual or group that receives our education and outreach messages. The Albany Pine Bush Preserve Commission seeks to reach a diverse audience focusing on a 30 mile radius around the Albany Pine Bush Discovery Center but not omitting those who live beyond this radius.

General Public (people local to Capital District Region as well as those visiting from outside the area)

- Individuals of all ages
- Couples
- Families
- Preserve neighbors

Schools

- Public
- Private
- Pre-school
- Primary
- Secondary
- Community College/College/University Undergraduate level
- Graduate level
- BOCES
- Schools that serve students with special needs
- After school school-based programs
- Home school groups
- Continuing adult education programs
- Teacher training workshops
- Other

Corporate/Business Groups

Special Interest Groups

- Residential associations
- Hiking clubs
- Service-oriented organizations (Rotary, Kiwanis, Lions, etc.)
- Scouts
- Boys and Girls Clubs
- Other non-school affiliated after school programs
- Garden clubs
- Seniors organizations
- Day programs for individuals with special needs (ARC, other)
- Themed organizations (examples: League of Women Voters, Daughters of the American Revolution, etc.)
- Other

Government Agencies

- Local (Village, Town, City, County)
- State
- Federal

Education and Outreach Staff

Current (2010) education and outreach staffing employed by the Natural Heritage Trust at the Albany Pine Bush Preserve should be maintained to adequately cover the existing education programs. Staffing needs will be evaluated on an on-going basis.

Staff

Discovery Center Director
Communications and Outreach Director
Education Program Director
Education Program Assistant
Environmental Educators
Discovery Center Administrative Assistant

Interns

High School
College

Volunteers

Volunteer Docents
Volunteer Junior Docents
Volunteer Educators
Volunteer Naturalists
Volunteer Gardeners

Facilities

The Albany Pine Bush Discovery Center sponsored by TrustCo is the primary and singular educational facility of the Albany Pine Bush Preserve and is an established destination for Pine Bush Preserve visitors. As stated in the *Final Report: Interpretive Planning for the Albany Pine Bush Preserve Discovery Center sponsored by TrustCo* by Donald Watson (2003) “[t]he [Discovery] Center will provide a visible destination, centrally located and with direct access to the Karner Barrens East area of the Preserve.” The APBPC intends to focus a majority of public use on the Albany Pine Bush Discovery Center and its grounds (95% of Preserve users) leaving a majority of the Preserve trails for the less numerous and more adventurous recreational users (5% of Preserve users). The majority of education programs utilize the Albany Pine Bush Discovery Center, with the minority of programs conducted as “outreach” programs (where education staff travel to a location outside of the Pine Bush Preserve to conduct a program).

The Albany Pine Bush Discovery Center opened to the public on June 16, 2007. The Discovery Center is the gateway to the Albany Pine Bush Preserve, providing visitors with interactive exhibits and activities that: explore the preserve’s geologic significance, examine the plants and animals that live in this landscape, explain preserve management principles and consider human impacts. Visitors to the Discovery Center, which include families, individuals, organizations, youth groups and educational groups, are encouraged to develop an awareness of the unique characteristics of the Pine Bush and a sense of stewardship for the Preserve.

Discovery Center Objectives:

- Advance APBPC’s mission to preserve and manage the unique ecology of the Albany Pine Bush.
- Continue to advance awareness of the significance of the Albany Pine Bush to a wide variety of audiences.
- Provide a variety of interpretive experiences that inform, entertain and engage the visitor with the goal of developing a sense of stewardship for the Preserve.
- Serve as a visible front door and orientation space to the Albany Pine Bush Preserve.
- Generate building related revenue by lease of the second floor office space.
- Maintain, expand and improve all interior and exterior exhibits.
- Replace exhibits as they approach the end of their life expectancy and to reflect the most current ecological management practices used in the Preserve.
- Manage the operational and maintenance needs of the Discovery Center building.

Serving as a central location for people of all ages to learn about the unique environment and human history of the Albany Pine Bush, the Discovery Center is supported by a variety of

interpretative program elements. These elements include: outdoor and indoor classrooms, guided and self-guided walks, interactive and interpretive exhibits and native plant gardens. Other program elements within the Discovery Center include an orientation theater, a teacher resource room, classroom space and a gift shop. In addition, educational program modules, video documentaries, critical issues and time-lapse exhibits, expanded volunteer programs, and an educational resource network and web page have been developed.

The Discovery Center is open to the public year-round, Tuesday through Sunday and Monday holidays. The Discovery Center is closed on Thanksgiving, Christmas and New Year's Day. Emphasis of the interpretive programs is placed on discovery learning and appreciation of nature within the Preserve.

For specific information on the on-going operation of the Discovery Center, see *Discovery Center Master Plan (M. Venuti)* document.

Volunteer Docent Program:

Discovery Center Docents perform several important roles. Docents are friendly greeters that welcome visitors to the Discovery Center, they are informal educators assisting visitors by answering visitor questions and providing visitor orientation, and they are formal educators leading small group presentations associated with specific Discovery Center exhibits.

Programs

The APBPC offers a variety of guided educational interpretive programs: public programs, school programs, special interest group programs, special events and outreach programs. Education staff members utilize a variety of resources to implement programs as referenced below.

Live animals:

The Discovery Center is home to a small collection of live turtles. The turtles are utilized for educational purposes, serving as ambassadors for their species, both in Discovery Center exhibits and in guided educational programs for schools and the general public. The inclusion of an educational animal in a program can inspire an emotional connection and significantly enhance the experience of the audience. Observers witness firsthand the movements, behavior and appearance of the animal, rather than simply viewing a static photo or illustration, furthering their understanding of the species.

Proper NYS Department of Environmental Conservation permits have been issued for each turtle housed at the Discovery Center and must be maintained. A formal animal care and handling protocol has been established, with specific requirements for animal handling privileges. The Discovery Center may consider the addition of one or more species to further expand live animal programs. All educational animals are responsibly and ethically acquired. Provision for animal care is an important budget and staffing consideration.

Volunteer Educators:

Education Volunteers lead interactive interpretive programs along the trails of the Albany Pine Bush Preserve and at the Discovery Center for a variety of groups including school groups, special interest groups such as the Boy Scouts and Girl Scouts and the general public. The Education Volunteer represents the Albany Pine Bush Preserve Commission as an educator and works to promote a greater understanding of the unique ecology and natural and human history of the Pine Bush.

School Programs:

The Albany Pine Bush Preserve is a unique living laboratory. The Preserve, its trails and the Discovery Center offer one-of-a-kind opportunities for school children to learn about a locally occurring and globally rare ecosystem. Teachers find authentic experiences for their students here as they accomplish learning standards and objectives.

School programs are offered throughout the year to students of all ages (pre-school through university). All grade school programs comply with both New York State and Federal Learning Standards in Science as well as No Child Left Inside legislation at a minimum. Many programs are interdisciplinary in nature. Attention to a diversity of content areas including math, social studies, language arts and art is made when developing new programs as well as consideration of individual learning styles as stated by Gardner's Theory of Multiple Intelligences. In addition, special attention should be made to developing curricula appropriate for the high school level.

School programs are advertised through the *Discovery Center School Programs* brochure. This brochure has been mailed to schools within the 30 mile radius of the Discovery Center (October 2009). As the offering/list of school programs is expanded, updated mailings will be conducted to advertise new programs. A listing of all school programs is also provided on the Albany Pine Bush Preserve Commission website (www.albanypinebush.org).

Administration of school programs is a significant part of the Education Outreach Plan. The following is an inventory of all aspects of our school programs.

1. Curriculum Planning

From concept to completion, school programs and kits are developed and implemented using the following bulleted list as a very basic guide:

- Concept/theme development: theme of program must correspond to the goals stated above (See section II of the EOP) Consideration of audience
- Background research
- Alignment with Learning Standards: NYS and Federal
- Objective development
- Lesson plan development using "Program Description Form" as a guide
- Safety, location and logistical considerations
- Program needs/budgeting
- Assessment
- Reflection

2. Publicity: School programs are publicized to schools and home school networks using the following means:
 - Mailings: school program brochure, education program flier sent both through the postal service and by e-mail.
 - Maintaining current information on the APBPC website.
 - Establishing and maintaining relationships with schools, especially those that are Title I and underserved schools in the Capital District community.
 - School outreach opportunities (ex. science fairs, teacher conferences, other tabling events)
3. Program registration and scheduling procedure: Selection of date and time, addition to e-calendar, pre-visit mailing (confirmation letter, checklist, information on deer ticks, information on Transportation Aid grant made possible by Friends Group, Discovery Center leave behind, trail map, school programs brochure, and photo release).
4. School visits to the Discovery Center/Pine Bush Preserve for guided Preserve-based education programs
 - Topic field programs (ex. Discover the Pine Bush, Forces at Work, Vernal Ponds, Winter Ecology)
 - Research/management/restoration field programs (ex. Help a Habitat, A Point in time and Seeds of Change)
 - Species-themed programs (ex. “The Future of the Karner Blue”)
 - Field research and stewardship activities (ex. Work of QUESTAR III and Albany High School)
5. Teacher contact/meetings/correspondence: Education staff routinely communicates with teachers and other faculty at schools, providing information on the Albany Pine Bush, our education programs, kits, and scheduling protocol.
6. Teacher training opportunities as advertised through the school program brochure and website
7. Teacher participation in curriculum design (ex. Geology curriculum sponsored by Dorr Foundation grant, Alan Fiero sabbatical)
8. Self-guided programs for schools (ex. Geology curriculum)
9. Outreach programs to schools: Given times of fiscal restraint, and in use as an outreach tool, the education staff will travel to schools to lead education programs off-site. Although a majority of programs should take place at the Discovery Center, the option to visit schools (to maintain existing relationships and develop new relationships with schools) should be kept open especially when reaching out to Title I schools.
10. On-line curricula: Dr. Alan Fiero’s inquiry-based investigations into the Pine Bush.

11. Materials: Any materials required for execution of a program (pre-visit activities, educational kits, materials needed for program itself including props and multimedia, post-visit activities).
Pre-visit activities include interpretive literature and educational kits: Discover the Pine Bush, Fire, Vernal Ponds, Tick Kit, Trading Kit
12. Independent student research: middle school level, high school level, college and graduate level
13. Funding/grants for school programs (ex. Dorr Foundation)
14. Policies and Procedures document: outlines procedure for planning, scheduling, conducting and completing school programs.
15. After School Programs
16. Evaluation and measures
A school program evaluation is in place and is issued to teachers before each program begins.

Public Programs:

The APBPC offers a diverse selection of public programs, covering a variety of topics including science, art, history, recreation and safety. Our goal is to offer a minimum of one public program per weekend, Pine Bush Pups pre-K programs during the winter and summer, public programs during school vacation times, occasional night time public programs and a noon-time hike on the first Friday of each month. Public programs are lead by Pine Bush Education staff, trained volunteer Educators and guest speakers. The following outline covers all aspects of our public programs.

1. Public program planning and development
 - Selection of topic and theme development: theme of program must relate in some way to the Albany Pine Bush. Given that context, ideas for new themes can arise from almost any aspect of the Pine Bush (ecology, biology, history, art, safety, etc.)
 - Who is your audience?
 - Objective setting
 - Topic research
 - Program description development
 - Closing
 - Implementation
 - Assessment
 - Reflection
 - Scheduling guest presenters, correspondence and recognition
2. Publicity: press releases, semi-monthly e-mail blasts, press releases, fliers, newsletter, website calendar of events, media opportunities (radio broadcasts, t.v. appearances, newspaper articles), other public websites including social networking websites

3. Public program policies and procedures
4. Program Series:
 - “Pine Bush Pups” Pre-K Programs
 - “First Friday Hikes”
 - “Discover the Pine Bush” Hikes
5. Public information sessions (e.g. prescribed burns, native plants program, etc.)
6. Special events
 - Lupine Festival
 - Fire Awareness Day
7. Temporary exhibits for general public within the Discovery Center
 - Exploration Station – exhibit theme renewal on a quarterly/seasonal basis
 - Discovery Tables- Lead by Volunteers, these temporary exhibits create another interactive experience in the DC.

Special Interest Group Programs:

“Special Interest Groups” are organized groups of people including garden clubs, Boy/Girl scouts, environmental groups, businesses, etc. the APBPC offers special interest groups the following:

- Guided programs at the Discovery Center
- Outreach programs to organization’s site
- Programs specifically designed for special interest group (for example, a program that meet scout badge requirements, native plant landscaping program designed for garden clubs)

Off Site Outreach Events/Tabling Opportunities:

To enhance visibility of the Preserve, APBPC education staff, volunteers, and Friends volunteers attend various outreach events to promote awareness of the Albany Pine Bush. The benefit of representing the Commission at such events is twofold: the Albany Pine Bush Preserve Commission gains greater visibility, reaching people who may not otherwise have heard of the Pine Bush and the Commission further solidifies relationships with hosting peer and partner organizations.

Message

- Who is the Albany Pine Bush Preserve Commission?
- What does the APBPC do?
- What is available to the public at the Albany Pine Bush Preserve?
- Why is the APB unique?

Outreach Event Venues

- City of Albany Tulip Festival: May – Mother’s day weekend, Washington Park
- Town of Colonie Harvest Festival – September, The Crossings Town Park

- NYSOPRHP Grafton Lakes State Park Winter Fest – January at Grafton Lakes State Park in Grafton, NY
- Capital District Garden and Flower Show – late March, Hudson Valley Community College
- Girl Scout River Walk – October, Mohawk River Bike Path
- Private partner events: LLBean Colonie Center store tabling opportunities (Gift wrapping, other)
- Additional requests to the APBPC for attendance at other events will be forwarded on to the Friends of the Pine Bush Community.

Display items

- Portable Outreach Display: A new self-contained portable outreach display (the “pod”) will be developed by a professional exhibit fabricator. Until the new display is complete, a temporary exhibit has been created.
- Hand-outs:
 - Standard handouts:* Discovery Center leave-behind, APB trail map, Update newsletter, public program flier with coupon for 10% off at Discovery Center gift shop
 - Optional handouts:* Other APBPC brochures
- Craft:
 - Ex. Logo embossed craft (button making, Karner blue butterfly magnet, etc.)

Staffing

For each outreach event, an Albany Pine Bush Preserve staff person is required to be at the display at all times. Volunteer Docents, Educators, Naturalists and/or Preserve Stewards will also be recruited to assist the staff person at the display. Depending on the event, the volunteer shift may be from 2-5 hours long.

Citizen Science:

Formalize a new venue for public participation in the Albany Pine Bush Preserve through “citizen science” where the public contribute real data to Preserve research projects. This technique was implemented in 1999 with the “Turtle Tracker” volunteer opportunity. Volunteers from the public assisted Preserve staff with tracking radio tagged eastern box turtles through the Pine Bush Preserve using radio telemetry equipment. Another example of a citizen science project is snowpack monitoring. Citizen science projects help to establish a more direct connection between science and education with the APBPC.

Publications:

The Albany Pine Bush Preserve Commission produces a diversity of publications. In addition, information about the Albany Pine Bush appears in a number of publications produced by other organizations. The following is a general listing of publications relating to the Albany Pine Bush.

1. APBPC color brochure
2. Pine Bush Update/Newsletter

3. Fact sheets & informational pamphlets
 - General Pine Bush information: What is the Albany Pine Bush? Origins of the Albany Pine Bush, History of the Pine Bush, etc.
 - Prescribed fire/NYS Fire Initiative publication
 - The Karner blue butterfly and other species-specific fact sheets (buckmoth, e. spadefoot toad, e.hognose snake, etc.)
 - Species checklists (Birds of the Pine Bush, Trees and Shrubs of the Pine Bush)
 - Landscaping with Native Plants and GLA Native Plant Restoration program
 - Invasive species of the Pine Bush fact sheets: black locust, aspen
 - Pine Bush bookmark series
 - Discovery Center publications: Leave-behind brochure, Discovery Center flier with coupon
 - Preserve Guide and Trail Map
 - School programs brochure
 - Program fliers monthly public programs, pre-K and First Friday
4. Books, magazines and other out-of-house publications containing information on the Albany Pine Bush Preserve:
 - Field Guide to the Albany Pine Bush Preserve (by Jeffrey Barnes),
 - Natural Areas of Albany County (ECOS),
 - Capital Region Living
 - Hudson Valley
 - Kaatskill Life
5. APBPC Management Plan: sections pertaining to education program and Discovery Center/Field Station
6. Annual report
7. Albany Pine Bush coloring book
8. Other

Mailings (standard mail and e-mail):

- Pine Bush Update/Newsletter
- Public program schedule
- Volunteer workday schedule
- School Programs brochure and related fliers
- Event-specific mailings (pre/post-burn notifications, local restoration activity notices, etc.)

Media outreach

- Newspapers
- Supply info to journalists for APB-related stories
- Television

- Radio
- Magazines
- Internet: Albany Pine Bush Preserve web page

Signage

Permanent and temporary signage at trailheads and specific locations throughout the Preserve is another method for disseminating information about the Albany Pine Bush.

1. Outdoor Preserve-based signs

Kiosk displays:

Permanent:

- Trailhead name (9 trailheads in the Preserve)
- Preserve rules and regulations
- Deer ticks and Lyme disease
- Trailhead register box
- Pine Bush interpretive mural
- Hunting information

Changeable: This information is updated on a regular basis

- Public program schedule (updated on a monthly basis by education and outreach staff).
- Volunteer conservation days (updated by stewardship staff)
- Prescribed burn window (updated by stewardship staff)
- Hunting seasons (updated by stewardship staff)
- Temporary management activities and trail closures (updated by stewardship staff)

Preserve boundary signs (Stewardship)

Preserve direction/identification road signs (highway departments)

Interpretive signs (Discovery Center grounds)

- Trail markers (Stewardship)
- Funding recognition signage (ex. NYSOPRHP EPF grant signage at Field Station and Rensselaer Lake)

2. Outreach displays

- Public locations: Albany International Airport, Guilderland Library, NYS Museum, NYSDEC Headquarters, Albany Visitors Center
- Senior living centers: Beltrone Living Center
- Displays at Special Events
- Displays at partner locations

Trails

1. Discovery Loop Interpretive trail

2. Preserve trail system (see also Recreation Plan)
Volunteer Naturalist Program: The Volunteer Naturalist program is an opportunity for volunteers to provide an informal educational presence along the marked trails of the Pine Bush Preserve. Naturalists patrol the trails and report to the Education Program Director the number of people they encountered along the trail, the time of day and the trailhead they patrolled. The Volunteer Naturalists are strictly an educational presence on the trails and not an enforcement presence. However, Naturalists do report back to the Education Program Director any illegal or inappropriate use of the Preserve and trail system. This information is forwarded along to the Director of Stewardship.

Partners

1. Schools and school based extracurricular organizations (primary, secondary, college, graduate, home school groups)
2. Businesses: ex. LLBean
3. Government (Federal, State and local) and government agencies (NYSDEC, NYSOPRHP, NYSDOT, etc.)
4. Non-Profit
 - a) Friends of the Pine Bush Community
Mission statement: Friends of the Pine Bush Community, Inc. works cooperatively with the Albany Pine Bush Preserve Commission to complement and support activities that further conservation and education purposes in the Albany Pine Bush Preserve.
 - b) The Nature Conservancy, Eastern NY Chapter
5. Independent
6. Other

Resources

The implementation of the Education Outreach Plan relies on the availability of the following resources.

1. Education Outreach budget
2. Education program equipment – for details, see inventories for Lupine Learning Center and Basement
3. Lupine Learning Center Library and references (Lupine Learning Center inventory)
4. Volunteer Docent, Educator and Jr. Docent equipment
 1. uniform shirt
 2. name tag
5. Volunteer Naturalist equipment
 - uniform (vest, hat, t-shirt) and name tag
 - backpack
 - whistle
 - hand clippers (for trimming back overgrowth along paths)
 - first aid kit
6. Literature production
 1. paper
 2. copying

7. Postage
8. Mileage
9. Resource acquisition
 1. Collecting permits: salvage
 2. Donations: cash, materials
 3. Expenditures from operations budget

Research

There is a need to assess the effectiveness of Albany Pine Bush education programs in meeting our stated objectives. A model/example of this research can be found at the Wilton Wildlife Preserve and Park within the Eastern NY Chapter of The Nature Conservancy, where the Preserve partnered with Skidmore College, a local college, to implement a similar research project.

Funding

The Education Outreach program clearly benefits from the financial support of grants, donations, foundations and other sources. Continued effort should be made to pursue funding that will further support the education and outreach program.

1. Foundations
2. Grants: Government (federal, state), private
3. Private donations
4. Operations budget
5. Program revenue

Evaluation and Measures

The evaluation process is critical to the success of the education and outreach program and should be continued on an on-going basis. Evaluation provides us with the means to assess visitor satisfaction, delivery of messages, performance of educators and other factors. There is also a need to expand the evaluation process to determine the effectiveness of our education programs in delivering our messages. We need to ask the question, “Are people getting the message(s) we intend through our programs?”

1. Performance measures
 - a. Public program evaluation – in place via the public program evaluation form
 - b. School program evaluation – in place via the school program evaluation form
2. Evaluating accomplishment of our goals: This is an area for which we need to develop specific measures.
 - a. Cognitive – do program participants understand and retain the information we are giving them?
 1. Pre- and post- testing (after programs, visiting our website, visiting Discovery Center, etc.)
 2. Partnership with local college or university to implement research
 - b. Behavioral – are our programs affecting participants’ behavior toward the Pine Bush? If so, how?
 - c. Affective – do our education programs produce the intended emotional response in participants?
3. Baseline information on public understanding of Pine Bush issues, biology, ecology

- a. Web based survey
- 4. Measuring key messages in the Discovery Center

Conclusion

The Education and Outreach Plan defines and guides the work of the Education and Outreach staff of the Albany Pine Bush Preserve Commission. Education, outreach and executive staff should review the Education Outreach Plan on a regular basis and revise as appropriate.