



Trail North of the Lily Pond Boardwalk in October

**The Friends of
Arlington's Great Meadows**

2007 Annual Report

Arlington, Massachusetts

www.FoAGM.org

What is Arlington's Great Meadows?

Arlington's Great Meadows (AGM) is a 183-acre parcel of open land owned by the Town of Arlington and located in adjacent East Lexington. Long enjoyed by area residents as a place of natural beauty, AGM offers diverse natural habitats, including extensive wetlands, upland forests, meadows, vernal pools, and other natural communities. It is home to a vast array of animals, birds, amphibians, and plants and a stopping-off place for many species of birds during their annual migrations. As the largest natural, undeveloped space in Arlington or Lexington, AGM is a treasure worth protecting and improving.

Who Are the Friends of Arlington's Great Meadows?

The Friends of Arlington's Great Meadows (FoAGM or the Friends) is a group of residents of Arlington, Lexington and beyond who are committed to the preservation and stewardship of this important natural landscape by working together with officials of the towns of Arlington and Lexington and with citizens everywhere who share their interest.

How Did the Friends Get Started?

In 1997, the Arlington Conservation Commission engaged botanist and naturalist Frances Clark to perform a study of AGM. In 2001, Ms. Clark submitted a report presenting a detailed description of AGM's features, an inventory of its animal and plant species, and recommendations for its protection and enhancement. The Arlington Conservation Commission then held a number of open meetings to review the findings and recommendations of the Clark Report. These meetings strengthened the interest of people who were already familiar with AGM and stimulated the involvement of many others who had not been aware of this beautiful natural space in our midst. As a result of these meetings, and as recommended in the Clark Report, it was decided to establish a group of representatives from Arlington and Lexington to protect and manage AGM on a continuing basis.

The first organizational meeting of the Friends of Arlington's Great Meadows was held in 2002 and attended by more than 75 people. Since that time, the Friends have been actively engaged in stewardship of AGM under the leadership of the FoAGM Steering Committee. The Friends work under the auspices of the Arlington Board of Selectmen which is the governmental body with authority over this site.

What Has FoAGM Accomplished?

FoAGM has worked in a variety of ways to protect and enhance AGM and to encourage its use for education of people of all ages and for the enjoyment of being in nature. The purpose of this Annual Report is to inform the Arlington Board of Selectmen and the citizens of Arlington, Lexington and beyond, about the activities and accomplishments of the Friends of Arlington's Great Meadows in its sixth year, through the end of 2007. Annual Reports for prior years can be found on FoAGM's web site, www.FoAGM.org.

ACCOMPLISHMENTS

2007 proved to be another busy and productive year for the Friends of Arlington's Great Meadows. The highlights of this year's accomplishments are described below. We wish to thank everyone who has helped in one way or another with these efforts.

Education and Outreach

Winter Tracking Walk at AGM – January 28. On a Sunday morning in late January, seven people joined Sandra Ruggiero in search of animal tracks. A slight dusting of snow had left a variety of fresh imprints to decipher. In addition to abundant tracks of domestic canines, evidenced by the “X” in their footprints and wandering path, the group found tracks of gray squirrels and rabbits. Several small rodents had ventured across a snowy patch leaving their miniature scrawl as evidence, and a weasel had left its scat and fur from a kill on a fallen log. Just when the group decided that two large sets of bird prints had to be geese, they came upon the ducks that made them. The afternoon ended with a mystery track which was most likely that of a mink based on its starry shape and waterside location. The discoveries of the day reminded us that we share this land with a diversity of silent, seldom-seen creatures whose presence often goes unnoticed until we learn to read the signs they leave behind.

Woodcock Walk – April 1. Six people gathered on a Sunday evening in early spring in hopes of witnessing the woodcock's annual mating display. The evening started early with one woodcock displaying right at dusk. The woodcock treated us to several cycles, but then decided to call it a night about a half hour later, so we did too.

Spring walk with Brownie Troop 1680 – May 4. Andrea Golden led Brownies from the Girl Scouts Patriot's Trail Council 1680, which includes girls from four Lexington elementary schools, on a spring walk through AGM. The group stopped to look at plants and landscape features in the meadow, discussed several common plants, and learned how plant names can give clues to the plants' appearance or traditional uses.

Lexington Garden Club Walk – October 9. Two Steering Committee Members led about twenty members of the **Lexington Garden Club on a tour of the south side of Arlington's Great Meadows.** A highlight was the Japanese knotweed control project along the bikeway, where attendees discussed the methods FoAGM is using to control the knotweed and enjoyed the newly recovered view.

Fungi Walk – October 14. On a Sunday in the fall, Harvard mycologist Dr. Donald Pfister, assisted by doctoral candidate David Hewett, led a walk to teach about fungi at AGM. About 18 adults attended, only one of whom had come to a FoAGM event before. Some of the fungi were large and obvious, but others would have been passed by unnoticed were it not for the leaders' trained eyes. Due to the dry weather, only one fungus in the form of a mushroom was found, a tiny one in the muddy bottom of Peat Pond. A major take-home lesson was that the fungi seen in nature are actually just the reproductive structures of an extensive system of filaments growing unseen in the ground or within host plant material.

Nature Walk – October 20. The next Saturday, eight adults joined naturalist Boot Boutwell in a wide-ranging walk emphasizing the natural history of plants and some of the effects of insects and fungi upon them. One area of the Meadows found to have a particularly diverse array of

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flora was the longer of the two boardwalks built by FoAGM in 2005. Along it are many species of wetland shrubs, including winterberry, highbush blueberry (on which Boot pointed out several blueberry kidney galls), maleberry, buttonbush, and chokeberry.



Walk with “Boot” Boutwell

Cub Scout Hikes – October 20 and November 4. Don Miller led two different groups of Arlington Cub Scouts plus some parents and siblings on late fall hikes in AGM. The scouts learned, among other things, that there are indeed bears in AGM -- “bear oaks,” the shrubby multi-stemmed oaks at the edge of the sandplain grassland on the north side. On the second hike, one young scout surprised the leader by readily identifying a plant on the long boardwalk as “maleberry”. When asked how he knew, the boy said, “Because I came on the walk last month”.

If anyone knows of a group interested in a guided walk at AGM we have several leaders available. Please contact Don Miller, 781-646-4965 or donaldbmiller@comcast.net for more information.

School Programs

In the Fall of 2006, Sandra Ruggiero and her eleventh grade students at the Waldorf High School gave presentations on vernal pools to four second grade classes at the Brackett School in Arlington. The presenters told of the mole salamanders and other creatures who need the fish-free environment of vernal pools to breed and live. Students played games and made salamanders out of beeswax. In the spring of 2007, the Brackett second graders followed up by visiting Infinity Pond in AGM with the high school students to study aquatic life and learn about the plants that grow there. The students all received a “Great Meadows Tour Guide” so they could return with their families for self-guided walks.



Students at Infinity Pond

Educational Mini-Grants

FoAGM established a new initiative this year to enhance students' understanding of the natural world and to encourage study and appreciation of the land in Arlington's Great Meadows. It offered mini-grants of up to \$250 dollars to cover the costs of materials for research and educational or artistic projects in the Meadows for students in grades K-12. Letters and application forms were emailed to the public schools in Lexington and Arlington via science coordinators, as well as to The Waldorf School and Lexington Christian Academy, which are both neighbors to the Great Meadows.

In December, FoAGM awarded its first mini-grant to Joe O'Regan of The Waldorf School, who proposes to install and maintain two beehives in AGM with his students. FoAGM's grant of \$250 will cover about half the cost of purchasing the materials needed to make the beehives and the bees to populate them. The additional costs will be covered by Mr. O'Regan and by The Waldorf School.

Community Outreach

Arlington Town Day. As in past years, a representative of FoAGM attended the Arlington Town Day in September to provide information about the Meadows and to hand out trail guides.

Resource Management Activities

Yard Waste Dumping. As in most local conservation lands and other open space, the dumping of yard waste such as leaves, twigs, and grass clippings by residential abutters and landscaping contractors has been a problem in Arlington's Great Meadows. Though this activity adversely affects the natural environment by spreading invasive plant seeds and smothering native vegetation, and it is prohibited by local and state laws, many citizens are ignorant of the harm that it causes and of the legal restrictions.

To discourage yard waste dumping in the Meadows, FoAGM arranged in 2006 for the Lexington Conservation Commission to send a letter to neighborhood residents explaining the problem. In 2007, as a follow-up, FoAGM installed six "No Dumping" signs at the AGM border locations where dumping has been the worst, and published an accompanying article in the Arlington Advocate newspaper; a similar article is expected to run in the Lexington Minuteman in 2008. Both the Lexington police and the manager of the Golden LivingCenter, an abutting nursing facility which has generously made its parking lot available to FoAGM events, have been supportive of our efforts to reduce illegal dumping in the area.



No Dumping Sign

Graffiti. Arlington's Great Meadows has a long history of low-level vandalism but has typically escaped major problems with graffiti. This trend was broken in late August by an extensive graffiti attack near the Minuteman Bikeway behind the Waldorf School. The culprits spray-painted portions of the Finger Marsh Boardwalk, about fifteen trees, some underbrush, and many rocks along the nearby trail with red and yellow juvenile graffiti. The Lexington police responded promptly and conducted an investigation. However, despite similarities between this incident and other graffiti incidents that had taken place in Lexington, they were ultimately unable to identify or apprehend the perpetrators. Within days, the Lexington Department of Public Works (DPW) used a pressure washer to remove the graffiti from the boardwalk and FoAGM manually removed most of the remainder from trees and rocks. We are very appreciative of the Town of Lexington's prompt and aggressive response.

Other Problems. Other unwanted activities continue to take place at AGM, but do not appear to have increased from the levels we have observed in prior years:

- Informative materials posted on kiosks continue to be removed but seem to be remaining longer.
- As noted in 2006, signs posted on the two kiosks asking visitors to better control their dogs appear to have been effective. Dog-related complaints have subsided.
- A small team of Lexington High School volunteers, working under the supervision of a Steering Committee member, filled a large hole in the Meadows near the end of Brandon Street, which had probably been excavated by children.
- Bonfires and under-age drinking accompanied by litter and broken glass continued in the area across the Bikeway from the Waldorf School playing fields, behind Emerson Gardens, and near the Golden LivingCenter parking lot.
- Mid-way through the year, the picnic table near the Bikeway disappeared. For now, we have decided not to replace it because it may have encouraged the partying and vandalism mentioned above. We may eventually reconsider because the knoll on which it was located is a popular scenic rest stop during daylight hours.

Maintenance. Routine maintenance continued in AGM and consisted primarily of trimming back brush eclipsing the two long boardwalks. The trail between Fottler Avenue and the Bikeway, which had become impassable due to a large blown-down tree and thick thorny brush, was cleared. Most other trails did not require maintenance this year thanks to a thorough trimming in late 2006 and a drought-like summer that slowed plant growth. The Friends repainted entrance signs, marker posts, and kiosks to restore fading colors and cover several years of wear and tear. It proved unnecessary to conduct an organized litter collection this year as the Meadows was largely kept clean by good-Samaritan visitors.

Habitat Restoration

Over the past several years, a number of users of Arlington's Great Meadows have expressed growing concern about an insidious and gradual change that is taking place in a portion of the Meadows. The area of sandplain grassland on the north side of AGM, beginning just above the nursing home's parking lot and extending east and south past the woodcock display grounds, is steadily beginning to fill in with low shrubs, taller sumac, and trees – primarily quaking aspen and gray birch. The change has been so gradual that some may not have noticed it. Others, though, are acutely aware of the change and don't like what they see. The previously open area with extended views has become much more closed-in. Many rightly worry that the whole grassland area will eventually fill in completely with trees.

The succession of grassland to shrub and forest does not come as a surprise. The Clark Report completed in 2001 for the Arlington Conservation Commission (see FoAGM.org) warned that in the absence of fires, the grassland would gradually fill in. Ms. Clark recommended in her report that the area be managed by regularly cutting back the woody vegetation.

In the spring of 2007, the Steering Committee began a process to evaluate and plan for this area. At the recommendation of Frances Clark, it consulted landscape ecologist Jeff Collins, the Director of Massachusetts Audubon's Ecological Extension Service, who is knowledgeable about habitat restoration and management. In May, after walking the northern portion of AGM

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with members of the Steering Committee, Mr. Collins advised that both *sandplain grassland* and *shrubland* communities are in short supply in eastern Massachusetts, and that this area of AGM could be managed effectively as either type.

According to Mr. Collins, to reestablish either type of community it would be necessary to remove a number of the newly-growing trees, particularly gray birches and quaking aspens, from some portions of the area. To maintain the area as a grassland, it would have to be mowed every year or two late in the season to keep the woody plants (shrubs and trees) in check. To maintain it as a shrub-land community, shorter species of shrubs could be allowed to grow but taller species of shrubs and new saplings of trees would have to be removed routinely before they grow too large. In either case, exotic invasive plants such as glossy buckthorn and multiflora rose would have to be removed routinely. Either management approach would restore a greater feeling of openness with better views and should also provide improved habitat for a variety of bird species, including woodcocks.

In the fall of 2007, the FoAGM Steering Committee authorized two volunteers to conduct a small pilot restoration project in the area. The volunteers pruned back part of a large patch of sumac which was blocking the view east from the vicinity of the northern kiosk and removed glossy buckthorn and a small number of selected tree saplings in the area. The work, which was consistent with a decision to maintain the area either as shrubland or grassland, has successfully restored a greater feeling of openness to the area.

In 2008, the Friends of Arlington's Great Meadows expects to continue its evaluation of and planning for the potential restoration of grassland or shrubland in this area, including the development of more detailed descriptions of what would happen under the two courses of action outlined above and the creation of maps showing the areas involved and expected costs. Input will be sought from the public and the conservation commissions of both Arlington and Lexington before any final recommendations are made to the Arlington Board of Selectmen.

Readers who have comments or questions about this project may contact Don Miller at donaldbmiller@comcast.net

Management of Invasive Plants

Since the spring of 2005, FoAGM has been working to eliminate Japanese knotweed ("JKW", or *Falopia japonica*) from an area on the north side of the bikeway just east of Waldorf School. The battle continued in 2007, and hope of eventual success is still alive. "Success" may mean something short of the complete elimination of the plant, perhaps management by relatively small amounts of routine work each year.

Cut, Clear, and Cover

As described in two previous annual reports, FoAGM has been pursuing two strategies to eliminate knotweed in this location. The first, called "Cut, Clear, and Cover", involves removing the previous year's stalks, digging out the large root crowns and as much of the rhizomes (horizontal underground stems or rootstalk) as possible, and covering the area with black landscape plastic to prevent re-growth. Hopefully the rhizomes will die eventually. This approach was applied in 2005 to an area approximately 30 feet by 50 feet.

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At the end of 2006, half the black plastic was removed, and the area was seeded with a mixture of grass seeds designed to restore disturbed areas such as this. The other half was kept covered with black plastic. During 2007, the seeded area filled in partially with grasses and some other plants, such as white campion, common evening primrose, pepper grass, and large plants of ragweed. Unfortunately, many shoots of knotweed also reappeared, especially on the lower half of the slope, although they grew with much less vigor than in previous years. Management of this seeded area included pulling out knotweed wherever it occurred; removing ragweed, horseweed, and garlic mustard; and encouraging desirable plants such as white campion, common evening primrose and pepper grass by distributing their seeds. The Steering Committee decided to leave the remaining black plastic area covered for a fourth growing season.



Waldorf High School JKW Clearing Crew

Cut, Cut, Cut

The second method involved removing the previous year's dead stalks, then simply cutting the new shoots on a regular basis, about every month or so. Such regular cutting should deplete the energy in the rhizomes without allowing the plants to store new energy, which would eventually kill them.

The "Cut, Cut, Cut" area is in two sections, on either side of the "Cut, Clear, and Cover" area. The eastern portion has been cut by weed whacker a number of times during 2007. Although knotweed has continued to send up many shoots in this area, it appears that the knotweed is beginning to lose energy, since the new shoots are smaller in diameter and slower-growing. It is hoped that next year the growth will be even less vigorous.

In the western portion, the knotweed has been cut by hand at various times during the season, attempting to give other species a chance to grow there and (dare we hope?) to inhibit future knotweed growth. Other species such as goldenrods, common evening primrose, common tansy, poke weed, bittersweet nightshade, raspberries, and others grew there this season. Although

some of these species are non-native, they are covering the area with a variety of plants which are generally attractive. Encouragingly, there are some small areas where knotweed shoots have not appeared this season, the diameter of most of the knotweed shoots has decreased, and the shoots appear to be growing more slowly.

Although FoAGM's efforts to eliminate Japanese knotweed appear to be decreasing the vigor of the invasive plant, only time will show how much of a long-term impact has been achieved. It is undisputable, however, that our efforts these past three years have maintained the beautiful view of the wetland from the Minuteman Bikeway during the growing season. While laboring among the knotweed stalks, FoAGM volunteers have overheard passers-by exclaim how beautiful the view is, and many have stopped to express their appreciation.

Are You Willing to Help?

Much work remains to be done on invasive plants, both along the bikeway and in other locations in the future. People willing to help – even for just a couple hours on one occasion – are encouraged to contact Don Miller, 781-646-4965 or donaldbmiller@comcast.net.

LEGAL PROTECTION OF ARLINGTON'S GREAT MEADOWS

It might surprise many that Arlington's Great Meadows is not conservation land. Technically, AGM is "surplus municipal land of the Town of Arlington", under the jurisdiction of the Board of Selectmen. Much of AGM is wetland, protected by federal, state, and Lexington regulations as well as by a special Lexington zoning regulation. These regulations make the wetland and bordering upland portion of AGM unavailable for real estate development and other alterations from its natural state. AGM also has one certified vernal pool and possibly several other vernal pools that are covered by additional protective regulations. Some of the dry upland areas of AGM not covered by wetland regulations are effectively protected from alteration because they are landlocked by Lexington conservation lands.

The remainder of the uplands of AGM is not legally protected from development. Most people who enjoy visiting AGM prefer to do so with dry feet and without damaging wetland areas, an experience afforded only by upland forests or meadows – the areas which are least protected. Moreover, development in the upland areas would interrupt the natural vistas seen from many protected points in AGM.

Protection of AGM in a natural state is an important component of the mission of Friends of Arlington's Great Meadows. FoAGM remains committed to this mission and plans to begin exploring steps to pursue the permanent protection of AGM through the best legal tools available, such as transfer of the land to the Conservation Commission, designation as Commonwealth Article 97 land, imposition of a conservation restriction, transfer to an appropriate state agency or non-profit land protection entity, or some combination thereof.

The Friends are not aware of any plans to develop any part of AGM in the near future. However, the long-term preservation of AGM as one of the largest pieces of natural open space near Boston is less certain. This is why FoAGM intends to work with Town officials, conservation groups, and citizens of Arlington and Lexington to seek enhanced legal protection for Arlington's Great Meadows as soon as practicable.

Financial Report

2007 was another good year financially for FoAGM, with a healthy net gain in funds stimulated by the generosity of the public and supported by our continuing partnership with the Arlington Land Trust (ALT) as our fiscal agent. Our funding balance has reached a level that enables new options like grant matching and the engagement of outside expert consulting services to help us achieve our more ambitious goals such as our habitat restoration project and land protection efforts.

A summary of the changes in FoAGM's fund balances as of the end of 2007 is presented below:

2007 Income

\$2,010.00 in 32 donations, range \$5 to \$500, average \$63
\$2,010.00 Total Income

2007 Expenses

\$ 334.60 No Dumping signs, posts, and hardware
\$ 39.97 Kiosk and sign painting materials
\$ 354.69 AGM guidebook reprint
\$ 729.26 Total Expenses

Fund Balance as of December 31, 2007

\$6,915.85 FoAGM fund balance at beginning of the year
\$1,280.74 Net change
\$8,196.59 FoAGM fund balance at year end

FoAGM would like to thank everyone who contributed funds toward the preservation of one of the most valuable resources in the Arlington/Lexington region. Those wishing to make a tax deductible donation can make a check out to "ALT FoAGM Fund" and mail it to FoAGM, Box 492, Arlington, MA 02476, or use a credit card online at www.networkforgood.org (Enter "arlington land" in the search field and select state of MA. Select Arlington Land Trust and enter "FoAGM" as a designation.)

Acknowledgements

We would like to thank the following individuals and groups that provided guidance, encouragement, physical labor, and other assistance to FoAGM, as well as countless others who helped us to complete a successful year.

Arlington Board of Selectmen	Lexington Christian Academy
Lexington Board of Selectmen	Lexington Conservation Commission
Arlington Advocate	Lexington Department of Public Works
Arlington Conservation Commission	Lexington Minuteman
Arlington Land Trust	Menotomy Bird Club
Golden LivingCenter, Lexington	New England Mountain Bike Association
Citizens for Lexington Conservation	Students of Lexington High School
Emerson Gardens Condominium Assoc.	The Waldorf School and Waldorf High School
Lexington Bicycle Advisory Committee	students and faculty
Lexington Garden Club	Lexington Police Department
Dr. Donald Pfister & Dr. David Hewett	Jeff Collins of Massachusetts Audubon
Roland "Boot" Boutwell	Frances Clark

The Friends of Arlington's Great Meadow is committed to continuing its stewardship and protection efforts for the exceptional land we are fortunate to have so near. We hope our work will guarantee that all generations can enjoy and learn from it.

Respectfully submitted,

The Steering Committee

David White, Chair
Andrea Golden
Mike Tabaczynski

John Bartenstein
Don Miller

Laurel Carpenter
Sandra Ruggiero

How Can I Get Involved?

We encourage residents of Arlington, Lexington and neighboring communities to attend our meetings and to participate in our activities. Steering Committee meetings are generally held monthly and an Annual Meeting is usually held in the Spring. To obtain notice of these meetings, visit our web site at www.FoAGM.org and sign up for our email list. For those with a strong interest, positions are available on our Steering Committee.

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Print Draft 1: 1/24/08