



View from the Finger Marsh Boardwalk in September

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

Annual Report

December, 2006
Arlington, Massachusetts

www.FoAGM.org

What is Arlington's Great Meadows?

Arlington's Great Meadows (AGM) is a 183-acre parcel of land owned by the Town of Arlington and located in adjacent East Lexington. It has long been enjoyed by area residents as a place of natural beauty offering 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 of a great many species, and it is a stopping-off place for many species of birds during their annual migrations. As the largest natural, undeveloped space in Arlington or Lexington, it 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 care deeply about Arlington's Great Meadows. The Friends are committed to the preservation and stewardship of this remarkable natural landscape by working together with officials of the towns of Arlington and Lexington and with citizens everywhere who share their interest.

How the Friends Got Started

In 1997, the Arlington Conservation Commission engaged botanist and naturalist Frances Clark to perform a study of AGM. In July 2001, Ms. Clark submitted a report containing 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 present the findings. These meetings strengthened the interest of people who were already familiar with AGM and stimulated the involvement of many other citizens who had not been aware of this beautiful natural space in our midst. One of the recommendations of the Clark Report was that a group be established with representatives from Arlington and Lexington to protect and manage AGM on a continuing basis. In March of 2002, The Friends of Arlington's Great Meadows held its first organizational meeting, which was attended by approximately 75 people.

What FoAGM Has Accomplished

Since its formation in 2002, 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 fourth year, through the end of 2006. Annual Reports for prior years can be found on FoAGM's web site, www.FoAGM.org.

ACCOMPLISHMENTS

2006 proved to be another productive year for Friends of Arlington's Great Meadows. Some of the highlights of this year's accomplishments are described briefly below. We wish to thank everyone who has helped in one way or another with these efforts.

Education and Outreach

Nature Walks

The Friends of Arlington's Great Meadows offered a number of opportunities for area residents to explore nature and wildlife in AGM throughout the year. Most of these activities were organized in cooperation with the Citizens for Lexington Conservation (CLC). A June bird walk was held jointly with the CLC and the Menotomy Bird Club.

Woodcock Walk In what has become an annual tradition, we met in the Meadow in April to witness the spring mating dance of the woodcock. FoAGM Steering Committee members Sandra Ruggiero and Andrea Golden were the walk leaders. About twenty people of all ages joined us for the walk. The night was very warm for April, and the ground was dry. It was a clear night and the bright moon allowed us to walk to and from the woodcock grounds without flashlights. We saw several woodcocks flying in and out of the display grounds, although it was hard to observe them on the ground because of the ground cover. We heard peepers and other frogs singing, and also spotted an owl nearby.

Biodiversity Days On June 11, Andrea Golden and Fran Ludwig (K-5 Science Specialist, Lexington Public Schools) honored Biodiversity Days with an event in the Meadow similar to the "Pond Day" we held last year. This year's group included a number of visitors who hadn't previously been aware of FoAGM but came after seeing signs we had posted on the kiosks. We spent most of the afternoon examining pond life at Infinity Pond, including several kinds of tadpoles and a variety of aquatic insect larvae. After returning our tadpoles and assorted larvae to the pond, we took a walk around AGM to look for birds and other terrestrial organisms.

Birds in AGM On a rare sunny Sunday in early June (May and June were exceptionally rainy months and the original date had to be postponed), Chris Floyd, Lexington resident and avid birdwatcher, led us on an early summer bird walk. About sixteen to eighteen birders from Arlington and Lexington attended. It was thrilling to see the sun and lots of birds too. Chris listed thirty-six species of birds spotted by walk members, including black-billed cuckoo, alder and willow flycatchers, orchard oriole, and warbling and red eyed vireos.

Plants of Arlington's Great Meadows On June 17, Mass Audubon naturalist and author Hilary Hopkins led us on an exploration of wetlands, woods and meadows. Upon hearing Hilary's stories, attendees developed a new fascination for many of the common inhabitants of AGM. Among the many wonders of the day were bulging pollen sacs of bees which we looked at through a field microscope. Hilary's terrific book, "Never Say It's Just a Dandelion," can be found at <http://www.geocities.com/amcwalks/authors.html>.



June Walk with Hilary Hopkins

Fall Walk at AGM On October 15, Andrea Golden led a group of about twenty-four on a circuit route through the Great Meadows to look for seasonal changes. The walk started in the East Village parking lot and followed the route outlined in the Guide to Arlington's Great Meadows (available on the FoAGM website). We visited Infinity Pond and walked through the neighborhood on the north side of AGM, returning to AGM via the trail along Fottler Brook. We stopped at the knotweed removal project area and at Peeper's Pond along the bike path before continuing on through the Meadow. The new boardwalks made it possible to circle the meadow without wading through water and mud. Because they are elevated, they also made possible a stunning overview of the meadow landscape.

School Programs

In the Fall of 2005, FoAGM Steering Committee member Sandra Ruggiero and her 11th grade students at the Waldorf High School visited three second grade classes at the Brackett School in Arlington to give vernal pool presentations. They told stories 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 2006, the Brackett second graders visited Infinity Pond in AGM with the high school students to study aquatic life and learn about the plants that grow there. We gave each student a "Great Meadows Tour Guide" so they could return with their families for self-guided walks.

Community Outreach

Arlington Town Day FoAGM once again had a representative at the Arlington Town Day in September to hand out trail guides and information about the Meadows and to answer questions.

Outreach to Meadows Neighbors Members of the Steering Committee met with the Emerson Gardens Condominium Board to discuss mutual concerns about the behavior of unleashed dogs in the Meadows. We posted signs on our kiosks reminding visitors of the

requirements of the Lexington dog control by-laws and agreed to stay in touch with the Emerson Gardens Board on this and other issues. Steering Committee members also worked with the Lexington Conservation Administrator to inform neighbors in the Brandon Street area about the harmful effects of dumping yard waste in the Meadow, as well as to remediate a huge hole that had been dug on the east side of the Meadow, apparently by children. The Lexington Conservation Commission sent a letter to abutters in that area, and FoAGM will be scheduling a work day in the spring of 2007 to fill in the hole.

Talk to the Lexington Garden Club In November, David White gave a presentation to members of the Lexington Garden Club about Arlington's Great Meadows. He talked about the activities of FoAGM and showed pictures of our projects and many of the plants and wildlife to be found there. He also talked about our invasive plant control efforts which generated a lot of interest and sympathy.

Earth Day FoAGM, along with quite a number of conservation and civic groups, was present in Lexington in April for the Earth Day Fair. It was a beautiful day, and many people stopped by to learn about the Great Meadows.

Resource Management Activities

Boardwalks and Bridges

The construction highlight of the year was the erection of a new bridge over Munroe Brook to restore access to Great Meadows through the Lexington conservation land near Orchard Lane. A short trail and bridge previously existed near this location, but when beavers made a home in this section of the brook in 2000, both were flooded out and destroyed. (The beavers are now long gone.) Several neighbors from Orchard Lane and Sanderson Road who missed the experience of conveniently visiting the Meadows approached FoAGM last year with a proposal to build a new bridge and restore their access.

Taking up the challenge, with the unanimous approval of the FoAGM Steering Committee, Steering Committee member Mike Tabaczynski designed and determined a suitable location for a bridge well above any chance of flooding, then shepherded the project through the Lexington Conservation Commission. On a summer Saturday in July, FoAGM, the Lexington Conservation Stewards and a number of neighborhood residents pooled their knowledge, surplus RTP grant money, and private donations to build the bridge and reopen the trail easement from Orchard Lane. Twenty-five volunteers brought not only muscle to the table, but also some innovative suggestions for moving 24-foot long, 600 pound pieces of lumber into place across the brook using hockey sticks and the laws of physics.

Other trail construction projects completed in 2006 included further reinforcement of the foundations of the long boardwalk against vandalism, and the installation of two simpler boardwalks in the small wet meadow east of the long boardwalk. This work was done on two separate days by small groups of volunteers, including an Emerson Gardens resident who happened by and ended up joining in, Tom Sawyer-style. The two new shorter boardwalks were built entirely of surplus materials from other projects and total 48 feet in length. They may need to be extended another 48 feet if the trail between them gets too muddy with the recent elevated annual precipitation trend.



Munroe Brook Bridge Construction

Vandalism and Unauthorized Activities

We regret that certain undesirable activities continued to occur in Great Meadows in 2006, though generally not at a higher a rate than observed in previous years:

- ◆ Information posted on kiosks was frequently removed.
- ◆ We received an increased number of complaints relating to uncontrolled dogs. Not isolated to Great Meadows, this has become a hot-button issue during the past year or two in other Lexington conservation areas, as well as in state parks and reservations. As previously noted, FoAGM posted signs on the two information kiosks asking visitors to better control their dogs and these signs appear to have been effective.
- ◆ Unauthorized cutting of trees and brush in Great Meadows was somewhat reduced from previous years and our prior efforts to close unauthorized trails were aided by the rain-fueled rapid growth of trailside invasive plants.
- ◆ Bonfires and underage drinking continue to occur, leaving litter and broken glass.
- ◆ Several entry markers to Great Meadows were spray painted this year.
- ◆ A very large hole (approximately 20 cubic yards) was excavated near the end of Brandon Street, perhaps by children. FoAGM arranged for the Lexington Conservation Commission to send neighborhood residents a letter about this issue, as well as about the regular dumping of yard waste in the area, and plans to fill the hole in the spring of 2007.

Maintenance

General maintenance in Great Meadows consisted mostly of trail trimming necessitated by vigorous plant growth. With the help of several volunteers over a few fall weeks, we cut brush back from almost all trails in Great Meadows and adjoining conservation lands. Trails to be trimmed were pre-marked with temporary yellow flags to guide volunteer trimmers working independently and to identify an “official” trail network for visitors to preview in advance of a plan we expect to roll out in 2007.

Management of Invasive Plants

Japanese Knotweed

This was the second year of FoAGM's campaign to eliminate Japanese Knotweed (JKW, species *Falopia japonica*) from an area on the north side of the bikeway east of Waldorf School. This location was chosen because it opens up a spectacular view of the Meadows from the bikeway. Starting early in 2005, FOAGM members and volunteers experimented with two strategies to try to eliminate this invasive plant.

The first strategy, which we call “Cut, Clear, and Cover”, involves (1) removing the previous year's JKW stalks, (2) digging out the large root crowns and as much of the rhizomes (horizontal underground stems or rootstalk) as possible, and (3) covering the area with black landscape plastic to prevent any regrowth. This strategy, which is extremely labor-intensive, but so far appears to have been successful, was applied to an approximately 30' by 50' section of the bank in the middle of the project area.

The second experimental strategy, which we call "Cut, Cut, Cut," involves repeatedly cutting and removing the Japanese Knotweed stalks at ground level, without attempting to dig out root crowns or rhizomes. The goal is to interrupt the process by which energy captured in the stalk through photosynthesis during the growing season is returned to the rhizomes for storage, and thereby to weaken the plants before the next season. Volunteers continued to cut new growth on both sides of the Cut, Clear and Cover portion of the project throughout the 2006 growing season, but the knotweed plants fought back with remarkable vigor. If this strategy is to be successful at all, it likely will have to be continued for at least several more years.

In 2006, the central Cut, Clear and Cover area was left covered for virtually the entire growing season. Volunteers periodically replaced sections of plastic covering which had torn or been blown out of place by the wind. They also removed new Japanese Knotweed growth, which continued to sprout weakly under the plastic in a few areas and strongly at the edges. At the end of the growing season, we removed the plastic from half of the Cut, Clear and Cover area, and sowed a seed mixture of Creeping Red Fescue, Annual Rye-grass, Timothy, White Clover, Red Top, Little Bluestem and Indian Grass designed for restoration areas. We thoroughly covered the remaining half to see whether a longer period of light deprivation would produce better results.

By mid-November, the seeded area was covered by a short layer of bright green grass blades, looking as if it intended to become a lawn. In the 2007 growing season, these grasses should grow taller and have a much more wild and natural appearance, with some other herbaceous and

FoAGM 2006 Annual Report

woody plants appearing also. If the Japanese Knotweed re-appears in this area, the new growth and as much of its rhizomes as possible will be removed. The other half of the Cut, Clear, and Cover area will remain covered, pending the results of the newly uncovered area.

Within the Cut, Cut, Cut areas, garlic mustard (another invasive plant) is becoming a problem. Although there was a small amount of this species growing under the JKW prior to the start of this project, its growth was greatly limited by the dense shade of the knotweed. When the Knotweed was cut, the garlic mustard became more plentiful. Volunteers removed a significant amount of garlic mustard here during 2006, but more intense efforts will be needed early in 2007 to keep this invasive species in check.



Restored JKW Area

Other Invasive Species in Arlington's Great Meadows

FoAGM targeted Japanese Knotweed because it was limited in area and there was a reasonable hope we could reduce or control it. Other invasives are of concern as well but are very difficult to address.

Purple Loosestrife covers so much of the wetland portion of the Meadow that controlling it would be beyond the resources of this group, except in selected areas where it appears in small numbers. Nevertheless, there is cause for hope. Near the longer of the two new boardwalks, the leaf-feeding beetles (*Galerucella* sp.) were seen eating the Loosestrife in the summer of 2006. This beetle has been used in some areas to attempt to control Purple Loosestrife, including one project in the Town of Lexington in recent years. Although release of large numbers of these beetles is thought to be impractical as a strategy for an area as large as AGM, it is heartening nonetheless to see nature beginning to help with this problem, even in a small way.

Garlic mustard is an increasing problem, especially in a wide area near the first AGM boardwalk.

FoAGM 2006 Annual Report

In 2006, some volunteer hours were devoted to pulling garlic mustard there, but at the close of the season the leaves of next year's plants are widespread there.

Common reed, better known by its genus name of Phragmites, is prevalent in vast areas of the wetland. It would be an impossible task to eliminate it at this point. European buckthorn, another invasive, is widespread and dense in shrub form in some forest areas, but it does not preclude the growth of other plants and its complete removal would be infeasible. Black swallowwort is found in a few limited locations and is dealt with by FOAGM volunteers from time to time. Also a problem in some areas are multiflora rose and oriental bittersweet.

Much work on invasive plants remains to be done by FOAGM in the coming year. People wishing to help - for even just a few hours on one occasion - are encouraged to contact Don Miller, 781-646-4965 or donaldbmiller@comcast.net.

Financial Report

FoAGM had another very successful year financially, accomplishing all the work described above while continuing to grow its available funds without charging any membership fees. We are grateful for our partnership with the Arlington Land Trust (ALT) which continues to serve as our fiscal agent, allowing tax deductible contributions to FoAGM.

Our 2006 numbers:

Income

\$1,660.00 Donations, range \$5 to \$300, average \$75

\$1,363.44 State RTP grant

\$3,023.44 Total Income

Expenses

\$ 357.90 Bikeway Japanese knotweed control

\$1,580.55 Boardwalk and Munroe Brook bridge materials and expenses

\$ 183.20 Reprint AGM guidebook

\$2,121.65 Total Expenses

Fund Balance

\$5,989.06 FoAGM fund balance at beginning of the year

\$ 901.79 Net change

\$6,890.85 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.)

Future Plans and Goals

- ◆ Blazing of trails and installation of navigation and informational signs.
- ◆ Initiation and planning of erosion control projects.
- ◆ Repair and tamper-proofing of the two information kiosks.
- ◆ Continued trail trimming.
- ◆ Increased invasive plant control.
- ◆ Repainting of entry markers and signs as necessary.
- ◆ Identification and rectification of muddy trails sections.
- ◆ Filling of the large hole near Brandon Street.
- ◆ Trail plan development.
- ◆ Increased community outreach.
- ◆ Educational grants to local schools.
- ◆ Expanded school field trips.

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.

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 fourth year.

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| 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 |
| Beverly Healthcare East Village | New England Mountain Bike Association |
| Boy Scouts of America | Students of Arlington High School |
| 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 |

The Committees of FoAGM

Education Committee

Sandra Ruggiero, Co-Chair
Andrea Golden, Co-Chair
Laurel Carpenter

Invasive Plants Committee

Don Miller, Chair
Anne Gibbs
Andrea Golden

Legal Committee

David White, Chair
Nathaniel Stevens
John Bartenstein

Resource Management Committee

Mike Tabaczynski, Chair
Anne Gibbs
Don Miller

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

Photo credits: All photos by David White.

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