



Upland Meadow in October after the brush clearing.

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

2010 Annual Report

Arlington, Massachusetts

www.FoAGM.org

A Brief Introduction and Some History

Arlington's Great Meadows (AGM) is a 183-acre tract of wild, natural 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 includes extensive wetlands, upland forests, grasslands, vernal pools, and other natural communities. It is home to a vast array of plants and animals, and a stopping-off place for many species of migrating birds. The largest natural, undeveloped area in Arlington or Lexington, AGM is a treasure worth protecting and improving.

The Friends of Arlington's Great Meadows ("FoAGM" or "the Friends") is a group of citizens of Arlington, Lexington, and beyond who are committed to the protection and stewardship of AGM. Under the leadership of the FoAGM Steering Committee, and with the assistance of many volunteers, the Friends work with officials of the Towns of Arlington and Lexington, and with citizens everywhere who share their interest.

Origins of FoAGM. In the late 1990's, the Arlington Conservation Commission engaged botanist and naturalist Frances Clark to perform a detailed ecological study of AGM. Ms. Clark submitted a report in 2001 which included inventories of AGM's plant and animal species and made recommendations for the area's protection and enhancement. The Clark Report and subsequent publicity increased interest in AGM and led to the establishment of the Friends of Arlington's Great Meadows in 2002. The Friends carry out their activities with the approval and encouragement of Arlington's Board of Selectmen which, as the government body responsible for AGM, has recognized FoAGM as stewards of the Meadows.

Major accomplishments of the Friends from 2002 through 2010 include:

- Construction of two boardwalks, totaling 700 feet in length, allowing north/south passage across the wetland.
- Construction of a footbridge across Munroe Brook, allowing access to AGM from Orchard Lane.
- Maintenance of trails, two informational kiosks, and signage.
- Removal of trash, construction debris, rusting car engines, and other eyesores.
- Organization and leadership of a wide variety of educational programs to teach children and adults about nature and to introduce them to the beauty and wonder of Arlington's Great Meadows.
- Ongoing control of invasive plants in priority locations, especially Japanese knotweed.
- Building awareness of AGM through newspaper articles, event notices, group emails, the *FoAGM.org* web site, fliers, booths at town events, and more.

This annual report presents the accomplishments of the Friends of Arlington's Great Meadows in 2010 and an update of happenings during the year. We wish to thank everyone who has helped in one way or another with these efforts.

Education and Outreach

Each year the Friends organize a number of field events to teach people about nature and introduce them to Arlington's Great Meadows. We hope that participants will return frequently, come to appreciate what a valuable resource the Meadows is, and help to support its permanent protection. In 2010, the following field events were sponsored by the Friends.

Third Saturday Nature Walks. For the third year in a row, FoAGM Steering Committee member Don Miller led his popular series of monthly walks designed to track seasonal changes in plant life and other features of the Meadows from spring through fall. The 2010 series began in April and continued through October, meeting on the third Saturday of each month, from 9:30 a.m. to roughly 11:30 a.m., with an occasional optional extension for those who wished to linger. The walks were targeted for adults, teens, and children ten years and older accompanied by a parent.

The April walk was particularly memorable – a great way to start the year. Fearful that the cold and rainy weather would dampen enthusiasm, Don sent an email early in the morning saying that the walk would be officially canceled. "But", he added, "I'll be there if anyone wants to do a short walk in the rain." Eight hardy souls showed up, each dressed in his or her own concoction of layers to combat the cold and wet. Their dedication was amply rewarded.

On that April day, spring was getting well under way, and growth and reproduction were beginning in earnest. Buds were opening and shoots were extending so new leaves could meet the anticipated sunshine. A special treat was the simple, white flowers of numerous young Amelanchier (shad bush) shrubs near Infinity Pond. Also visible were many flowers-that-don't-look-like-flowers, such as the catkins of gray birch and the flowers of bear oak. Because both are pollinated by wind, they don't have to devote energy to the showier displays other flowers use to attract bees, birds or other pollinators.

Two hours later, four of the eight walkers opted to continue for a third hour despite the cold and drizzle. At the end, one man said, "That was the best 'canceled walk' I've ever been on."

Throughout the season, a favorite stopover was the Lily Pond Boardwalk. Constructed by FoAGM volunteers in 2005 to allow dry-foot crossing from one side of the wetland to the other, the boardwalk provides close-up access to wetland flora and fauna as well as beautiful views out over the extensive wetland. Among the noteworthy plants found in this area were button bush, male berry, sweet gale, common arrowhead, Joe Pye weed, rattlesnake grass, common boneset, and wool grass, a sedge that looks like bursting fireworks when fully in flower.

Later in the season, a favorite spot was the mostly-dry mud floor of Peat Pond. Among the plants getting a late start there were beggars ticks, which stood only a few inches tall compared to their three-foot-tall siblings on drier land. Also spotted was St. John's wort, unfortunately just past flowering – how sad to miss its unique flowers! In other, drier, parts of AGM over the months, a perennial favorite was pink lady slipper, a member of the orchid family.



Don explains mugwort.

Don hopes that many who joined his walks will return to favorite spots in AGM and share them with friends . . . or possibly come alone. Reflecting on the year, he commented: “Sitting alone, silently, on the Lily Pond Boardwalk on a beautiful day – watching water striders skate on the surface of the water, hearing and maybe seeing frogs and common yellowthroats, looking at water lilies and, yes, purple loosestrife, and watching dragonflies do aerial acrobatics – that is an experience not to be missed . . . and just one of the beautiful places and wonderful experiences available to all in Arlington's Great Meadows.”

Spring Butterfly Walk. On Saturday, April 24, Lexington resident Tom Whelan, a nature photographer and butterfly enthusiast, led about fifteen people, mostly adults, on a spring butterfly walk. Binoculars were recommended because the spring butterflies Tom was seeking are much smaller than the familiar monarch butterfly. In fact, he explained, they are about the size of a nickel and move constantly, landing only briefly. When they land on dead leaves for a few seconds, they seemingly disappear into the “camouflage zone.”

Most of the butterflies observed were two types of "elfin butterflies", Henry's elfin and brown elfin. Also found on the dry, sandy-soil side of the hill behind the Golden LivingCenter Lexington, were blue azure butterflies. These are absolutely beautiful and easy to see despite their small size. For some walkers, judging from their correct identification of species and very long camera lenses, the butterfly walk was a delightful, annual rite of spring. For others, it was an eye-opening introduction to a whole new chapter of nature study.

Summer Bird Walk. On Sunday, June 6, Lexington birding enthusiast Chris Floyd led a group on an early-morning walk to see the breeding birds of Arlington's Great Meadows. Following

Chris's usual method, the group walked quickly and covered a lot of ground – from the north side of AGM at the Golden Living Center parking lot all the way to the south side and back again – while stopping often to look and listen. The group, which included experienced birders and newcomers alike, observed a number of local bird species.



Chris Floyd leading a Summer bird walk.

The FoAGM steering committee can provide guide services, brief nature lessons and information on AGM. We can also provide assistance including publicity for others who wish to lead walks there. For more information contact us at Info@FoAGM.org.

- **Science in the Meadows**

The Friends welcome the use of Arlington's Great Meadows by scientists, teachers, students and others seeking to conduct non-destructive scientific research in a natural environment or to educate children about science and nature. Two scientific projects continued in 2010.

Research on the Eating Habits of Birds. Northeastern University graduate student Liz Clark conducted the second year of a two-year study of the extent to which various species of birds will eat the fruits of invasive plants when the fruits of native plants are available. Part of her study involved installing small mesh bags on branches of buckthorn shrubs to catch berries which fall naturally. The bags did not catch birds or harm them in any way. Ms. Clark will share the results of her research with FoAGM when it is completed.

Honey Bee Project. Students at the Waldorf School continued for a third year a honey bee project in which they care for and harvest honey from bee hives in the Meadows. This year, one of the hives was infested with mice and had to be removed but more hives are planned for the coming year. Waldorf teacher Joe O'Regan and his students originally constructed and installed the hives in 2008 with support from an FoAGM educational mini-grant.

Anyone wishing to conduct scientific research in Arlington's Great Meadows should contact FoAGM via email at Info@FoAGM.org.

Community Outreach

Educational Mini-Grants. FoAGM offers mini-grants of up to \$250 for research or artistic projects in Arlington's Great Meadows involving students from grades K-12. No applications were received in 2010, but FoAGM will again distribute information about the program to area schools and organizations in the hope that interesting and useful projects will result. Application forms are available on our website. If interested, contact us at Info@FoAGM.org.

Resource Management

Upland Meadow Restoration Project

After many months of planning, study and public discussion, the Friends began work in the fall of 2010 on the first phase of a long-term project to restore several small areas of previously open upland meadow. As described in our Annual Report for 2009, "... because of the declining frequency of fires in AGM, some upland areas that for many years have been open meadows are now changing rapidly to forest. This accelerating process has resulted not only in the diminution of some wonderful views of the wetlands, but also in the reduction of habitat variety that sustains a diversity of flora and fauna, including many species of birds." In a report issued in 2009, Jeff Collins of Mass Audubon's Ecological Extension Service provided detailed ecological descriptions and management recommendations for three separate meadow areas. The Collins Report can be viewed on the FoAGM web site.

After review and discussion of several alternative approaches to restoring the meadow habitat, the FoAGM steering committee decided to begin, on a pilot basis, with an all-volunteer effort. With the approval of the Arlington Board of Selectmen and the Lexington Conservation Commission, a fall workday was planned to mechanically clear successional and invasive shrubs and trees from approximately half of the "entry meadow" located at the northeast corner of AGM behind the Golden Living Center parking lot, consisting of several acres.

On Saturday, October 23, approximately sixty people of all ages turned out to help with the project. It was inspiring to see so many people working together and they made a Herculean task look easy. Volunteers included: residents of both Arlington and Lexington; members of Citizens for Lexington Conservation (CLC); local area cub scouts, mainly Cub Scout Pack 306 (Pierce, Stratton, Bishop, Arlington school children); Daisy scouts and their parents; and a group of high school seniors from Tulsa, Oklahoma who were in the area visiting colleges and in search of a community service project.

Using loppers, hand saws, weed wrenches, and chain saws, the volunteers cleared staghorn sumac, buckthorn, japanese honeysuckle, grey birch, and a few quaking aspen. Hundreds of

stems were cut down, hauled, and piled. Much of the buckthorn was pulled out by the roots to prevent re-growth. FoAGM is grateful to everyone who helped make the day a success, with a special thank-you to Bob Hausslein whose chainsaw skills greatly multiplied the amount of clearing that was accomplished.



Scouts and parents helped with the upland meadow clearing.

Volunteers as well as passers-by indicated they would love to participate in future volunteer workdays. Many walkers with and without dogs stopped to ask what was being done, and a few residents shared their delight in seeing the area restored to “how it looked ten years ago”.

Subsequent to the October 23rd workday, FoAGM Steering Committee Member John Bartenstein, with assistance from his son Chris, put in many hours of follow-up work, breaking down and reorganizing the brush piles for burning as well as salvaging and cutting firewood. Arlington resident Al Franchi helped speed up this process by pitching in on a Saturday morning with his chainsaw to cut up numerous lengths of firewood. The firewood was piled and made available for a \$25 contribution to benefit further FoAGM activities.

Once the winter snows melt, the next phase of the project is to safely burn the brush piles. Some of the newly cleared area may need seeding in the spring. The cleared area will need ongoing maintenance to suppress re-growth of woody vegetation. After evaluating the results of this pilot project, the FoAGM Steering Committee will decide whether, when and how to proceed with restoration of the remaining upland meadows addressed in the Collins Report.

More information about this project can be found at <http://foagm.org/>. Questions can be directed to Don Miller at donaldbmiller@comcast.net.

Maintenance Activities

Management of Invasive Plants

Although invasive plants abound in many areas of Arlington's Great Meadows, during the last six years the Friends have focused invasive management efforts in an area along the Minuteman Bikeway where a massive stand of Japanese Knotweed, apparently introduced in landfill used to construct the bikeway, had grown up to block the view of the beautiful wetland from spring through fall.

As reported in prior years, two techniques have been used on an experimental basis in an attempt to eliminate Japanese Knotweed from this area. "Dig, Dig, Dig," sometimes also known as "Cut, Dig and Cover," has involved digging out the root crowns and as much of the rhizome network as possible, and covering the ground with black landscape plastic for an extended period of time in an effort to block sunlight and thereby destroy any remaining rhizomes. "Cut, Cut, Cut," also known as "Cut, Cut, Pull," has involved cutting the growing stalks repeatedly during successive growing seasons with the goal of interrupting the process by which energy from photosynthesis in the leaves is returned to the rhizomes for storage, thereby weakening the plant. No herbicides have been used.

The "Dig, Dig, Dig" method has produced mixed results. Two experimental plots located in the center of the test area were initially excavated and covered with black plastic in the spring of 2005. The first was uncovered at the end of 2006, after remaining under wraps for a little over a year and a half, and a mix of wild meadow grasses was sown to retain the soil. Unfortunately, this length of encapsulation does not seem to have been sufficient to completely eradicate the Knotweed. Stalks from surviving fragments of rhizomes continue to sprout through the grass cover and have had to be controlled by periodic pulling of the new growth. A second, adjoining plot, left under wraps for three more years, and finally uncovered in late 2009, has fared better. We are pleased to report that this section has remained largely Knotweed-free for most of the 2010 growing season.

The "Cut, Cut, Cut" method, which requires less exhausting up-front work but more continuous effort over the years, has offered a little better promise. Several years ago, we began to notice that Knotweed plants in the easternmost portion of our experimental area that had been cut down two or three times each growing season were starting to weaken and could be pulled out by the roots (rhizomes) with relative ease. Some of the root masses were covered with a white fungus and appeared to be rotting. Encouraged by these developments, Steering Committee member John Bartenstein and his son Chris made a push late in the summer of 2010 to extend the cut area eastward, through the strip of woods adjoining the bike path, almost to the Brandon Street cutoff.



Waldorf High School students help with Japanese Knotweed control

Despite evidence that we are making some headway in the battle against Japanese Knotweed, it is by no means over and the incredibly persistent invasive continues to rally and return in fairly massive quantities each spring. It is still too early to tell whether either of our experimental methods offers promise for the long-term control of this invasive, but at the very least we are pleased that our efforts are keeping open one of the finest views of the Meadows.

For more information, or if you are interested in helping with the effort, contact John Bartenstein at jcblex@verizon.net.

Trail Maintenance and Fire Department Access

Dedicated FoAGM members were able to keep all the trails open again this year. Several volunteers replaced warped planks in the boardwalks and rotting posts for the AGM sign near the Golden LivingCenter entrance. Others cut back along the trails and trimmed along the boardwalks since they are in the sun and the meadow plants there grow vigorously

Other Management Matters

- Dumping of yard waste has greatly diminished after the installation of signs in 2007 at several locations where this was common.
- AGM remained relatively litter-free in 2010, thanks to regular visitors who helpfully pick up what a few others leave behind.
- Other activities that typically occur in municipal open space (under-age drinking, littering, petty vandalism) continue to occur in AGM, but no more than in prior years.

Legal Protection Of Arlington's Great Meadows

The Friends of Arlington's Great Meadows continue to be committed to permanent protection for the entire property through the best legal means possible. Possible strategies are (1) a conservation restriction, or (2) designation as conservation land under Article 97 of the Massachusetts Constitution. Currently, Arlington's Great Meadows, which is classified as "surplus municipal land of the Town of Arlington," is not a legally protected conservation area, although a majority of the acreage is protected as wetlands. We encourage anyone who is interested in pursuing permanent legal protection for AGM to contact us.

Financial Report

Not surprisingly, in view of the economic conditions, donations to AGM in 2010 were down about a third from 2009. However income exceeded expenses by almost \$1,000 and we continue to hold healthy cash balances. It is satisfying to note that all of our income is from individual donations and employer matches, so we are fully supported by the generosity of our dedicated members and not dependent on municipal budgets, grants, corporate funding, or fundraising events. FoAGM also continues its successful partnership with the Arlington Land Trust (ALT) as fiscal agent.

Summary of activity in FoAGM's fund balances as of the end of 2010:

2010 Income

\$ 1,296.00 in 21 donations

2010 Expenses

\$ 53.28 Meadow project permitting

\$ 154.47 Printing

\$ 100.08 Boardwalk and sign repair materials

\$ 307.83 Total Expenses

Fund Balance as of December 31, 2010

\$ 8,288.21 FoAGM fund balance at beginning of the year

+\$ 988.17 Net change

\$ 9,276.38 FoAGM fund balance at year-end

We thank our new and trustworthy regular donors who have contributed to the preservation of one of the largest natural open spaces 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.)

Mike Tabaczynski, Financial Officer

Acknowledgements

We would like to thank the following individuals and groups for their 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	Massachusetts Audubon
Lexington Board of Selectmen	Menotomy Bird Club
Arlington Advocate	New England Mountain Bike Association
Arlington Conservation Commission	Polatin Ecological Services
Arlington Land Trust	Students of Lexington High School
Golden LivingCenter-Lexington, Clyde Tyler, Executive Director	Waldorf School in Lexington
Citizens for Lexington Conservation	Waldorf High School of Massachusetts Bay
Emerson Gardens Condominium Assoc.	Arlington Police Department
Friends of Lexington Bikeway	Jeff Collins of Massachusetts Audubon
Follen Community Church	Frances Clark
Cub Scout Pack 306	Fran Ludwig
Joe O'Regan of the Waldorf School	Herb Pearce
Lexington Fire Department	Chris Floyd
Lexington Garden Club	Bob Haussein
Lexington Christian Academy	Jay Sklar
Lexington Conservation Commission	Stew Kennedy
Lexington Minuteman	Keith Ohmart
Lexington Police Department	Joe Snodgrass
	Tom Whelan

The Friends of Arlington's Great Meadows is committed to continuing its stewardship and protection efforts for this exceptional treasure in our midst. We hope our work will ensure that all generations can enjoy and learn from it.

We would like to give special thanks to Laurel Carpenter who retired last year after being a much appreciated steering committee member for five years.

Respectfully submitted,

The Steering Committee

David White, Chair
Don Miller

John Bartenstein
Sandra Ruggiero

Mike Tabaczynski
Sandy Vorce

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.