

Meadows of the Shawsheen River Reservation By Don Milligan, Warden

AVIS acquired the Shawsheen River Reservation through Chester Abbot. The Abbot family came to Andover about 1685 and settled on a King's Grant, which extended for about three fourths of a mile. Abbot chose the area with space to pasture his animals and the Shawsheen for an adequate water supply. The cattle continued to be herded to pasture over Andover Street until the mid 1950s when the Abbots relocated their dairy farm to Vermont.

The Shawsheen Reservation consists of two or three meadows depending on whom you talk to. Starting from Central Street, there's a natural boundary created by the brook, Henderson Bridge and the kiosk built by Eagle Scout Max Li. This meadow is uniquely suited to support a large variety of species: i.e., biodiversity: "a variety of species in a particular area of ecosystem". It is covered with joepyeweed, cardinal flower, butterfly milkweed and other native essential pollinating plants that help support several endangered species including the monarch butterfly.

The second meadow has the Claus Dengler Trail. This trail follows the river upstream to a pastoral knoll with benches and picnic tables overlooking the "old swimming hole". Here you will find one of the "AVIS natural wonders" the "Octopus Tree", open meadow and the pine savanna is bordered with native trees and shrubs with varieties of ground cover under the trees. The open meadow offers a glimpse of the ongoing success of ecological restoration on the reservation. It supports several native wildflowers and grass species that attract a variety of insects, birds and animals that depend on and call this meadow home.

The third section is all about supporting birds. Several native flowers, fruiting shrubs such as high bush blueberries provide nutrients to our Eastern Bluebirds. There are several bluebird boxes. This last area has goldenrod, culver's root and New England aster with poke weed near the serpentine bridge. These native plants help our migratory bees and birds continue on their

journey. From all the fruits, nuts, pollen and fungi in the soil, the Shawsheen River Reservation makes an extraordinary difference in supporting the survival and protection of native and endangered species.

I want to thank Warden Susan Hunt for her wise words of wisdom relative to the features and native flora she has nurtured on this reservation.



Andrea and Patrick Milligan in the Octopus Tree

Rich Bizzozero, A Warden of Deer Jump Reservation By Alix Driscoll

"Rich has a talented combination; he is extremely knowledgeable about everything in the woods, and he loves to get his hands dirty managing his reservation," according to David Dargie, the AVIS Land Manager.

"I do a lot of chainsaw projects," admits Rich Bizzozero, warden of Deer Jump Reservation from Launching Road to Raven's Bluff.

"It feels like my land." This passionate sense of ownership seems to be a mark of pride and protectiveness.

An AVIS warden for 17 years, Bizzozero particularly admires the stand of old mature hemlocks on his reservation at Nollet Drive to Raven's Bluff along the mighty Merrimack River as a signature vista.

Currently the chair of the Vermont Tree Farm, (vermonttreefarm.org), he cut his chops planting his first 1,000 seedlings to start his own Christmas tree plantation on his family's property in Brookfield, Vermont. While he no longer grows Christmas trees, he enjoys managing the family forest with the objectives of producing high quality lumber, enhancing



Rich Bizzozero inspects the enormous white pine he chopped down recently by Nollet Drive. Photo by Cynthia Barakatt.

wildlife habitat and protecting the water quality of two streams on the property. In addition to his project work, he spends time each summer enjoying the property with family and friends walking the extensive trail network that has been developed over the years.

Bizzozero retired from service in April of 2020 as director of the State's Toxic Use Reduction Program. The program works with Massachusetts businesses to green up their manufacturing operations, focusing on eliminating waste and using fewer toxic chemicals, and creating efficient processes to manufacture their products. He spent much of his 29-year career working one-on-one with Massachusetts companies and, later in his career, he focused on developing chemical policy for the State that incentivized companies to adopt greener manufacturing operations.

Knowledgeable about forestry management and the challenges of resiliency in the face of climate change, Bizzozero strongly advocates that AVIS create a management plan for its largest properties that focus on forest and ecosystem health. "We should be actively managing our woods" to promote the long-term health of our forests given the challenges we face with increasing human use, climate change and the exponential growth of invasive species.

West Parish Meadow: Preserving Deacon Solomon Holt's View

By Jane Dietzel-Cairns

Unlike most of the Historic Districts in Andover, West Parish Center was characterized in its heyday not by industry or commerce but by the family farms clustered around the classical West Parish Church and its burial ground. AVIS's West Parish Meadow is what remains of the neighborhood's proud farming heritage.

The property was part of the Deacon Solomon Holt Farm, now 111 Reservation Road, which was built circa 1810 for one of the most prominent men of this parish. Born in 1768, Solomon Holt Sr. was a charter member of West Parish Church, donating the land necessary for building the meetinghouse and the first parsonage, and serving as a deacon until his death in 1830. Inherited by his son Solomon Jr. and remaining in the family until 1893, the farm was comprised of 147 acres in 1850, with 33 acres directly adjoining the homestead farm, and the rest made up of pastures and wood lots extending across Reservation Road, up to Shawsheen Road, and down to Indian Ridge. From this spot, the Holts had a stunning view—now obstructed by trees—of both the church on its hill and downtown Andover to the east.

Four generations of the prolific Holt family were active in the social and religious activities of the neighborhood, continuing to sell land for various expansions of the church's cemetery, vestry, and horse sheds. One grandson, Jonathan Abbott Holt, was a private in Andover's Company H during the Civil War and was killed along with many of his boyhood friends at the Battle of Spotsylvania on May 19, 1864. Great-grand-son E. Francis Holt, a Phillips Academy graduate and talented teacher of mathematics and science, served several terms on the Andover School Committee and was instrumental in modernizing the system's curriculum and hiring the town's first superintendent of schools.

Several other families worked the farm during the first half of the 20th century after William M. Wood, president of the American Woolen Company, purchased 44 acres on the west side of Reservation Road to turn the once-rural burial ground into the garden cemetery we know today. Later owners sold the east corner of the farm for the development of Mayflower and Pilgrim Drives and house lots along Reservation Road. Finally, the homestead and two acres of



Jane Dietzel-Cairns stands along the Bay Circuit Trail, which goes through the West Parish Meadow. Photo by Becky Cairns

land were purchased by West Parish minister Rev. Otis A. Maxfield and his wife Virginia, while the church took ownership of the remaining property. In 1992, the West Parish congregation sold the property to AVIS for all to enjoy, using the proceeds in part to make repairs to their historic steeple, and thus preserve another element of the "skyline" beloved by generations of the neighborhood's residents-including me, growing up down the road on Beacon Street.

The author is Board President of Andover Trails and Board Member of the Andover Center for History and Culture.

President's Letter

By John Hess

Once again, thank you to all the wardens, scouts, members, and donors who support our effort to keep reservations open during these busy times. AVIS properties continue to see a high level of use. With that in mind, we sent a letter to all Andover residents



who are not members. That mailing has garnered many new members who recognize the benefit of having open space nearby. Thank you to all those new members for joining us in this effort to preserve open space.

I hope everyone is still enjoying the outdoors despite the rain and then the heat this summer. An excellent way to continue to enjoy the Andover trails is to join with AVIS and the Town to celebrate the 375th Anniversary of Andover by hiking 20 reservations between now and next May. There is a "challenge" to do this and to receive a gift from the 375th Committee. Please see the AVIS or Town website for details and a list of reservations.

In addition to partnering with the Town on this challenge hike, AVIS continues to collaborate with many groups in town. The High School Environmental students under the leadership of teacher Melanie Cutler have been excellent partners this year and, of course, many scouts continue to do work on AVIS land. We also partnered with the Conservation Commission to submit an application for a State Municipal Vulnerability Action grant. The Town was successful in getting this grant for \$131,000 to conduct a scientific study of the parcels along the Shawsheen River with the goal of purchasing land to help with expected flooding.

Many thanks also must go out to Denise Boucher and Amy Janovsky for pulling together a group of volunteers who have been dubbed the Weed Warriors. These folks have been very effective in addressing the invasive species in the Lupine Reservation. That effort can serve as the model for how we approach this problem in the coming years.

Finally, you should be aware that the AVIS Trustees are working on a Strategic Plan to address many of the issues we face in the coming years. The Committee and all the Trustees are putting in extra time to make this a worthwhile effort.

We look forward to continued collaborations with other organizations, volunteers and supporters like you.

| | AVIS Membership Name: Address: | AVIS PO Box 5097 Andover, MA 01810 | Non-Profit Og. U.S. Postage Paid Permit No. 344 Andover, MA 01810 |
|-----------|---|--|---|
| | Town, State, Zip: Phone: | | |
| | Email: | | |
| | Dues:\$30 Individual\$100 Sustaining\$50 Family\$15 Student & Senior | | |
| | You can join or renew online at www.avisandover.org/join or make check payable to "AVIS" and mail to : | | |
| | AVIS PO Box 5097 Andover, MA 01810. | | |
| | For information about planned giving or stock donations contact info@avisandover.org. Contributions and dues are tax deductible to the extent permitted by federal regulations. Thank you! | | |
| _ | | for other hikes visit /ERTRAILS.ORG | For AMC walks see AMCBOSTON.ORG |

The AVIS Update is a biannual publication of The Andover Village Improvement Society. The mission of AVIS is to acquire and preserve Andover land in its natural state. More than 1,200 acres of land are managed by AVIS and are open to all for passive recreation.

Please be sure to check our website, avisandover.org, for hikes and other activities during the fall and winter.

AVIS EVENTS

Andover's 375th Anniversary Hiking Challenge Join townspeople who are hiking 10 AVIS reservations and 10 Town-owned reservations, the main trail loop on each reservation, to celebrate Andover's 375th anniversary.



AVIS reservations: Deer Jump; Goldsmith Woodlands, Anne Rawlins Green, Hammond, Indian Ridge, Harold R. Rafton; Sanborn, Skug River, Vale/Shawsheen River, West Parish Meadow

Town-Conservation reservations: Bellevue, Carmel Woods, Doyle Link, Lightning Tree, Mary French, Virginia Hammond, Pole Hill, Pomps Pond/Foster's Island, Retelle, Sacred Heart reservations.

Earn a special commemorative backpack.

Go to Andover375.org for more information on the project and to get a folder to download.



Heading to "Journey's End" at Goldsmith Woodlands are two visitors; one is journeying in a specially crafted Grit Freedom Chair produced by a local startup. Courtesy photo.

JOHN HESS President JIM SUTTON Membership ALIX DRISCOLL *Editor* LINDSEY CHANDLER Designer



Weed Warriors to the Rescue

By Amy Janovsky, AVIS Land Stewardship Chair

For several years now, the AVIS Land Stewardship team has been trying out various strategies to slow the damage done by invasive plants on our reservations. For example, established trees capture significant amounts of carbon, slow storm water and help cool our properties, yet bittersweet vines overwhelm and kill healthy trees. Another non-native species, glossy buckthorn, changes soil chemistry and prevents the growth of important native plants.

We have had some success working with licensed professionals who use herbicides sparingly in a very targeted manner. But the costs and potential impacts of applying various herbicides point to the importance of non-chemical hands-on techniques as well. If we can remove problem plants as seedlings, or remove established plants before they fruit, it can be effective but it takes time, effort and vigilance—and is difficult to scale up for large properties.

AVIS Volunteer Coordinator Denise Boucher has spearheaded the latest element in our land stewardship program: the AVIS Weed Warriors, modelled after a successful program in Sudbury. Volunteers with an interest in plants are learning to identify a dozen common invasive plants and how best to manage them without chemicals.

Our efforts have focused on a very unique, small reservation this year: the Lupine Road Reservation. According to Botanist Walter Kittredge, who has advised AVIS on the project, Lupine is a High-terrace Floodplain Forest, an ecological community that is among the rarer in the Commonwealth. The site hosts a wide variety of native plant species that were being overwhelmed by honeysuckle, burning bush, Oriental bittersweet, glossy buckthorn and wintercreeper. We've uncovered numerous native wildflowers, including tall meadow-rue, nodding trillium, Solomon's seal, Solomon's plume, wild geranium, spotted St. Johnswort, and many others. The enthusiastic Weed Warriors team has put in a total of more than 200 hours so far and this two-acre gem is starting to thrive again.

This spring, Walter surveyed the property using a "resiliency scale" that measures the presence or absence of typical species for the particular ecosystem, and assigns a number. Walter generously donated two keystone species for the site from his native plant nursery Oakhaven Sanctuary, swamp oak and bigtooth poplar, and Dick Dillon constructed deer protection cages for the young trees. By re-opening the understory for native plants and adding a few other tree species this fall, Walter anticipates that we will be raising the property's resiliency score—a reflection of the important roles these trees play in supporting the interconnected elements of this particular ecosystem.

The most gratifying part of the Weed Warriors program is that it has mobilized quite a large group of AVIS members who've been looking for a new way to help the organization. Pioneering the new program has been a great team effort. We've made some new friends and learned a great deal from Walter and each other.

We're excited about current discussions on ways to grow the program to protect the land we all enjoy. If you'd like to join in, please reach out to Denise (denisegirish@avisandover.org).

Walter Kittredge is a newly retired botanist from Harvard University who is generously advising AVIS's Weed Warriors program and the wetlands restoration at the Goldsmith Woodlands, a work in progress.



Pictured here from left to right is Jane Gifun, Susan Hunt, Amy Janovsky (AVIS Weed Warriors trainer), Dianne DeLucia and Cheryl McKeough, all Weed Warriors.

These people are a group of dedicated volunteers who have trained as Weed Warriors for AVIS. They have put in many hours removing invasive plants in an effort to allow the native species of plants to return. In this picture they are holding garlic mustard. This invasive plant emerges in the spring before most native plants. By the time native species are ready to grow, garlic mustard has blocked their sunlight and outcompeted them for moisture and vital nutrients. Garlic mustard roots release chemicals that alter the important underground network of fungi that ultimately inhibit the growth of important species like trees. By Denise Boucher



Here are bluebird eggs from one of the bluebird houses installed at the Shawsheen River Reservation by Tim Platt during the covid19 lockdown. Ranger Dick Dillon dug in the posts. Bluebirds inhabited five of the houses in the spring. Photo by Cheryl McKeough.

2020 Financial Summary

Based on AVIS Statements of Activities and Changes in Net Assets (First Draft) from the outside CPA

| Income | | Expenses | |
|----------------------|-----------|----------------------|----------|
| Membership Dues | \$22,405 | Program Services | \$38,488 |
| Contributions/Grants | \$104,943 | Management/General | \$27,469 |
| Change in Investment | \$104,018 | Fundraising Expenses | \$4,332 |
| Other | \$10,668 | TOTAL | \$70,289 |
| TOTAL | \$242,034 | | |

Eagle Scout Projects This Summer By Buzz Stapczynski

What a summer to work in the woods! We had rain, heat, humidity and more rain, and our scouts working on their Eagle Scout projects persevered thru it all and improved our trails for the enjoyment of our hikers.

This summer, AVIS was fortunate to have four Eagle Scout projects on three of our reservations. Nick Solt and his team from Troop 77 built 40 feet of boardwalks in the Harold Rafton Reservation. He worked on two sections of Harold's Trail that were seasonally very muddy. His special challenge was getting supplies and materials into the two areas as they were deep in the reservation, a half mile from the parking lot at the community gardens.

The Bonier Reservation, AVIS' newest land acquisition, was the site of five boardwalks on the newly created trail around this 22-acre reservation. Jack Stadtman from Troop79 and Alex McNally from Troop75 designed the project and presented it to the Conservation Commission for their approval. Jack led the building of four separate boardwalks of various lengths, which all together totaled nearly 100 feet in length. Alex's project was one 90-foot boardwalk that had to be perfectly level, end to end despite the unusually long length. These two Eagle Scout projects were well received by the neighbors of this reservation because it opens up land for public use that was previously private property.

Ryan Greenwood led the Troop 77 scouts on a project to improve the trail entrance to the Collins Reservation from Pine Street. The trail in this area is heavily used by the neighborhood and it's impacted by a stream that makes the trail nearly impassable in wet weather or snow melt. Ryan obtained Conservation Commission approval and built a 140 foot boardwalk to carefully cross over this impacted section and improve the trail for hiking in all weather conditions.

Every year AVIS is the beneficiary of Eagle Scout projects and this summer these four Scouts designed and led the construction of 370 feet of boardwalks, which improved the trails for all to enjoy. At summer's end, our trails were made easier to use and these four Scouts learned valuable leadership skills, A win-win all around.



A group of Boy Scouts creating a boardwalk over muddy ground.

New Members from August '20-August '21

Lauri Adlman Brian Anderson Jennica Anderson **Elvse Andrews** Alexander J. Asch, M.D., P.C. Joan Ashlock James Ball Bryan Bannon Joan Bartley Vardhaman Bawari Beckwith Lee Family Fund James F. Bedford Renate Berthold De Bustard Else Betterncourt Roland A Bibeau Catherine Bonier Jennifer Bouchard Ingrid S. Bowes Amy Brearley Gary Butt Elizabeth M. Broaddus Barbara Burke Ronald Carrington Laura Casey Nino P. Cerniglia Maria Chae Fu-Ren Cheng John Clark Michelle Cochran Joanne Coiro Jennifer Colleran Christopher N. Cook M.J. Corry Megan Coslick Anita L. Crowlev Eric Curtis Daryn DeCesare Elizabeth A. DeLucia Denise M. Deveau James Dezieck Jean Driscoll Patricia E. Dunn Bini Egertson Alison R. Fecht Amy Femming-Fessler Jeri Field Eva Flaherty Marie H. Flynn Melanie Fraser William Gabriel Christine M. Genaitis Joseph J. Giaimo

George Goldberg Jose E. Gonsalves De Mendonca Lisa A. Grav Candace Hall-Nourse Anne Halsey Joanne Halpern Christopher Ham Jason Haskell Chris Heitmann Benjamin O. Hoerner Amy Holland Elise Hoskins Holly Housman Radu Ille Ann Irza Chad Jennings Charles Joyner Joyce M. Harris Jason M. Haskell JoAnn Kalogianis Marilyn G. Kelley Hyesson Kim Paul King James Klauer Tina Korsberg Nicole Marie Laine Beverly Lamarr Gennaro Ledonne John J. Lee George H. Lentz Paul W. Leuzzi David Liberatore Stephen Lisauskas Barbara C. Longworth Andrea E. Lyons Maggie Macy Brittany Mahoney-Rafferty Michael J. Mangione Heather Marquis Gertrude Martel Anita Massie Amy Elizabeth Matuza Lisa McCusker Joe McGee Deanne McGuinness Cheryl McGuire Peter McLaughlin John McNabb Jr. Jennifer P. Mossher David S. Murphy Christopher G. Nihan Bert O'Connor Freeden Oeur

Dermot P. O'Farrell Judith Olmstead Dena O'Neil Helen Palmer Paul Paonessa Wioletta S. Pawlowski Patricia Peterson Frederick Porter Mike Reilly Scott Richardson Marian Ritter Nancy Ritz Wayne Rodger Craig A. Saline Jennifer Scheer Michelle Shainker James Shaw Silvia She Kimberly Solt Nada Soussou Gregory W. Spurr Brian J. Stevenson Debbie Street Kristin Strellis David Strong Peter Symosek Jessica Tamarin Ann Grete Tan Seven Taylor William S. Thomas Heather Thomson Richard D. Tiberii Sharon Torres Anthony Torrisi Jonathan Towle Kimberly Trull Barry P. Tucker Steve R. Walther Laura Wilson John VanBuren Marcia Vancini Judith VerPlanck-Elliott Alex Vispoli Kara A. Voss Robert Ward Tracey Waszkelewicz Johannes Weis Gerri Weiss Deborah White Henry White Jacob Whitmore Hartmut Wohirab Tzuvang Yu Michael P. Yuan Lilita Zemgals Nancy Zemlin Yimeng Zhang Zhonghua Zhao Dabin Zhu

Collaborations

Thank you to the Merrimack River cleanup crew on July 24

By Susan Stott

Thank you all for your enthusiastic participation. We had perfect weather, a good time and learned a lot that will help us with a future event.

Andover has five miles of riverfront on the Merrimack River and we attacked the worst mile where the most debris snags on fallen trees and accumulates.

Special thanks to the fire department, and to firefighters John? and Bob? who signed up for this project, as well as to Phillips Academy, who allowed us to launch from their boathouse and to the Department of Public Works, who removed all the trash we took from the river, at least two dozen bags.

This cleanup was a collaboration among AVIS, the Conservation Commission, the Andover Fire Department and enthusiastic volunteers. Some came by boat and others came by land hiking down from Launching Road; the cleanup was right along the shoreline.

It is important to remember that it was about five decades ago that Andover High School and Phillips Academy students cleaned up this same area of the mighty Merrimack River as they created the very first Earth Day.



Left to right: On July 24, Leslie Trotta and David Dargie, AVIS Land Manager, canoed the Merrimack River to pick up flotsam and jetsam along the Deer Jump Reservation and the Bay Circuit Trail near Launching Road. They were among several dozen boaters and land lubbers cleaning along the river. Photo by Susan Stott.

Force Friday team from Andover Youth Services helps AVIS



Photo by David Dargie

In the heat of July, a crew of volunteers from Andover Youth Services, the Force Friday team, hauled out a decaying and dangerous boardwalk from the area near the grotto on the old Franciscan land by the Deer Jump Reservation. They were under the direction of Land Manager David Dargie. They are, left to right: Sami Sylvester, Raghav Tewari, Tony Lombardi, the AYS Program Coordinator, Hadar Cohen -Yashar, Felix Yang, Jovanna Ciras-Rousseau, Aarit Chauhan, Erica Dauphin, Elias Maitas and Drew Pitts.

There were other AVS projects this summer. Bakers Meadow: Cleared spillway of debris, removed leaves and debris from the beaver deceiver, removed a fallen tree from in front of the spillway; Smith Reservation: removed unstable, muddy ground from the trailhead/parking area and Goldsmith: cleared logs and branches from the area next to the parking lot as AVIS prepares to add native plants to the area.

"We are always so grateful to be able to help AVIS," shared Mr. Lombardi.

Nabeel, an Environmental Intern, Collaborated with AVIS

Nabeel Lokhandwala, pictured here with several bags of invasives cleared from the Shawsheen Road Reservation, is a 2021 graduate of Andover High School who spent several hours each week at that reservation improving the trail, picking up trash, removing invasives, and researching the history of the site. Nabeel was a student in Melanie Cutler's Environmental Sustainability Internship Course. The primary goal, set by AVIS mentors Jim Sutton and Susan Stott, was to make the reservation a more pleasant place to walk and to inform those who visit it about the history of the site as a boarding house for the women who worked at Smith



& Dove Manufacturing in what is now known as Dundee Park. Nabeel worked on leveling the path and extending it in a loop to Shawsheen River as well posting QR codes on stakes to connect to websites with information about the boarding house, called "Hillside." It was an exciting and worthwhile collaboration between Andover High and AVIS and we expect to continue the collaboration in the coming school year. *Photo by Jim Sutton*