Natural Area Preservation News

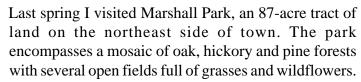
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The mission of the Natural Area Preservation Division is to protect, restore and champion the natural areas of Ann Arbor, especially those in the City's park and recreation system.

Natural Area Preservation is funded by the Ann Arbor Parks and Recreation Department's voter-approved Park Maintenance and Repair Millage.

Oriental Bittersweet (*Celastrus orbiculatus*): Strangling the Landscape

y by Greg Vaclavek



It's one of my favorite parks, but I had never before explored its northeast corner. I hiked in through a beautiful stand of oak saplings and into the woods. I walked over a hill, admiring the diverse ground cover of sedges, geranium, may apple and other wildflowers in the dappled sunlight. At the bottom of the hill, the ground vegetation dwindled and the forest grew darker. My heart sank as I looked up and recognized what loomed overhead. Vines of oriental bittersweet clung to the trees, enveloping the canopy and strangling the trunks of mature oaks and hickories. Nearby stood the skeleton of a red oak. A vine spiraling up the trunk held so tightly that the tree had tried in vain to grow around it. Most of the branches had broken off, strained by the weight of the vine and winter's precipitation and winds. I fought my way to the edge of a small opening and saw the oriental bittersweet covering small trees and shrubs and completely blanketing the ground. A closer look revealed few, if any, other plants in the infested area. After further exploration at Marshall I found many strangled trees, choked openings, and copious amounts of vine seedlings in surrounding areas.

Oriental bittersweet out-competes native plants because of its rapid growth, tremendous seed production and ability to spread through its roots. Like most woody invasive plants, it spreads to our natural areas when birds that have eaten the fruit fly in and drop the seed. This fall, the NAP field crew was busy mapping and removing oriental bittersweet from several Ann Arbor parks in the hope that biodiversity could be restored.

Although there is a native American bittersweet (*Celastrus scandens*), oriental bittersweet is more popular for home landscaping and dried flower arrangements because of its rapid growth and copious production of orange fruit. You can do your part by learning to identify oriental bittersweet and being aware of the plants you bring into the community.

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Parks&Recreation

Natural Area Preservation is a Division of the City of Ann Arbor Department of Parks and Recreation. Our Address is: 1831 Traver Rd. Ann Arbor, MI 48105 (734) 996-3266 or 994-4834 fax: (734) 997-1072 email: nap@ci.ann-arbor.mi.us

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Coordinator's Corner: Planning for the 7th Generation, or Practicing the Land Ethic

In October the Natural Areas Association (NAA) held its 25th annual conference in Michigan. NAA is a national, non-profit organization whose mission is to advance the preservation of natural biological diversity. NAP was one of the official supporters of the conference. Our main responsibility was to coordinate the silent auction as a fund-raiser for NAA. We pulled that off with great success and shattered all previous records by raising about \$6500 at the auction!

The conference was co-hosted by several tribes of Native Peoples, and its theme was "Planning for the Seventh Generation." This was a formal attempt to strengthen ties between NAA and the Native American community. There are obvious connections between the two groups. We in NAP often talk about what the landscape looked like before European settlement so drastically changed its face. We also talk about how Native People regularly burned the prairies and oak savannas, and why it is important for us to mimic that practice.

But more than tapping into traditional knowledge about the early American landscape, the conference was an opportunity to begin learning about the relationship that Native Peoples have with the land. The notion of planning for the seventh generation reflects the sense of responsibility that we have to future generations to leave them an intact planet with a range of diverse ecosystems and a full complement of native species. One tribal elder told me a story about how humans were created the weakest of all the animals; just to survive we needed clothes to keep warm, weapons to find food, and shelters to live in. So, to compensate for this weakness, we were given an intellect. But with that intellect came the responsibility to speak up for the other creatures and to be good stewards of the environment.

This idea of environmental stewardship was the central theme for Aldo Leopold in *A Sand County Almanac* and his other writings. In 1948 Leopold wrote, "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." He calls this new perspective a "land ethic."

So, NAP's restoration effort is more than just restoring the native ecosystems to the land; it is really about restoring the right relationship between us and the land. Our role has to be more than just an admirer of nature; we need to be good stewards, good care-takers. We need to develop a land ethic as part of our personal set of basic principles. Then we need to live out that land ethic in our everyday lives. Get involved with NAP and we'll give you the opportunity to practice this land ethic. We'll provide you with the opportunity to restore native ecosystems and restore yourself at the same time. The Ann Arborites in seven generations will thank you.

David Borneman, Natural Area Preservation Coordinator

Staff Updates

Gideon Porth joined the NAP field crew in September as a Conservation Worker. Gideon has been in Ann Arbor five years and recently graduated with a degree in Resource Ecology and Management from the University of Michigan School of Natural Resources and Environment. Also a part-time farmer, Gideon has jumped right in on harvesting and propagating native seed and removing invasive, non-native plants in the parks, putting some of his ecology background to work alongside his love of being outdoors.

Tom Hulleberg is another new edition to the NAP field crew this fall as a Conservation Worker. He recently graduated from the University of Michigan's School of Natural Resources and Environment with a Master of Science degree, concentrating in Resource Ecology and Management. Although natives of the east coast region, Tom and his family have come to truly enjoy the Ann Arbor area--both its natural and cultural aspects.

The NAP program said goodbye this fall to **Alan Wolf**, NAP's herpetologist and coordinator of the frog and toad inventory for the last two years. He has moved on to greener pastures as a new staff member at the University of Wisconsin-Madison. Congratulations, Alan! We'll miss you!

NAP-penings

Thank you to **Steve and Riley Bean**, **Rick Foster**, **Kirsten Mowrey**, **Carol Pintek**, and **Sharon and Ron Sorensen** who answered our call for seed collectors in the Autumn *NAP News*. They spent many hours this fall collecting acorns and big bluestem seed in Ann Arbor parks such as Barton, Bandemer, and Gallup. Many of the acorns have already been planted at sites where honeysuckle and buckthorn shrubs have been removed. Most of the big bluestem seed will be sowed in the spring following prescribed burns at prairie sites.

Jacqueline Courteau, a PhD candida at the University of Michigan who is studying plant ecology, donated approximately 300 black oak seedlings to NAP. The seedlings have been planted at Barton, Sylvan, and Bluffs Parks so far. Thank you, Jacqueline!



Students from **Community High School**'s ecological restoration class, along with their teacher, **Aina Bernier**, have been volunteering with NAP at each workday since September. With approximately 12 students in the class, this makes for a lot of dead buckthorn and honeysuckle! Besides removing nonnative shrubs from our natural areas, the class has collected and sowed native seed and done some trail work with NAP. Thank you to this highly dedicated group of volunteers!

Huron Parkway Native Planting Project

by Paul Bairley, Forestry and Horticulture Division, Ann Arbor Parks and Recreation Department

For many years, the Elizabeth R. Dean Fund Committee (DFC) has discussed the idea of naturalizing the medians on Huron Parkway north of the Huron River. (The Dean Fund was created in 1964 when Elizabeth Dean willed nearly two million dollars to the City of Ann Arbor to repair, maintain, and replace trees on City property.) The medians here are planted entirely in turfgrass, while the adjacent parkway areas are very natural, comprised of shade and evergreen trees, a variety of dogwood and sumac shrubs, and some native and non-native forbs. The turf medians have always seemed like an illogical interruption of this landscape and, of course, require frequent mowing to maintain them.

For nearly two decades the DFC discussed a planting proposal to install native trees and shrubs within these medians to complement the natural growth on either side of the parkway. One obstacle to implementing such a plan was the high initial capital outlay for woody plant material, both in getting appropriate stock of the proper size and in the large volume of plants needed. A second concern was raised by our transportation engineers about sight distance obstructions created by the ultimately large woody plants.

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Native Plants to Help Kick Your Winter Ailments

by Kristie Brablec

It's amazing what you can find when you look to the land to help your health. Many native plants can be made into remedies for the common cold and flu. As tempting as it may be to go out and pick your own native plants, however, please remember that not all plants are there to help you, especially without knowing the proper methods to prepare your remedy. To ensure your safety, I suggest gathering these remedies at a local co-op or health food store.

You might have heard boneset (Eupatorium perfoliatum) also called "break-bone fever." In fact, one good use for it is to reduce fever. This perennial herb is a mild tonic and helps attack the common cold when taken in small doses. The best way to take boneset is in a tea. Place one ounce of the dried herb in a pint of boiling water. Let steep for ten minutes. Drink a wineglass full of the tea once every half hour. It usually takes five doses to take effect, depending on the individual and severity of the fever. If the fever is serious, see your doctor.

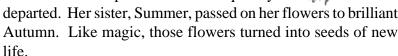
Slippery elm (*Ulmus rubra*) is often used as a great throat soother. The bark contains ingredients of many commercial throat lozenges. The sweet mucilage coats the mucous membranes of the throat, providing relief. There are a couple different ways to take slippery elm. The first and easiest is to buy lozenges at your local store. The second is to make a tea by adding

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Reflections from the Field

by Kristie Brablec

Autumn just made her visit, showing us all her colors and wonder. She came on fast when we least expected it and too quickly



The crew spent many days in the presence of this lovely spirit, Autumn, helping to remove invasive plants that did not conform with her fiery fall colors. Other days we transported ourselves to the harvesting grounds where we collected seeds growing high and seeds growing low, some of brilliant color and others that matched the browning landscape. We learned that seeds have unique ways of dispersing across Mother Earth. Some have powers of flight to make their way across great distances. Some have a pleasant taste which attracts wildlife that will carry the seeds to new places. Others have been given the power to attach. Often these seeds would take a free ride on our clothing. Lady Autumn offered plenty to collect, and we did so with respect and thanks. We will save her seeds for the safety of our future, returning them to the earth at a later time.

Just as we are becoming accustomed to her, Autumn signifies she must be moving on—the winds gust stronger, the temperature grows colder, and the forest canopy is denuded of its leaves. And so she passes, leaving us not alone, however, for the cycle always continues. You may have felt a new tenant moving in whose breath blows frosty and whose beard is full and white. His name is Old Man Winter, and he may come visit you some day or cold night. He has amazing powers, too, forming crystals that take flight. So the NAP crew would like to say to you this season, "Bundle up. Old Man Winter is cold, but sweet, so take note of his marvels, and keep warm feet. We may miss fair Autumn and crave warm Spring, but be glad he is here, for relief from invasives he brings!"

Oriental Bittersweet (continued from page 1)



Description: Oriental bittersweet is a non-native woody vine best known for its yellow-orange fruits which split to reveal bright red seeds in the fall. It can climb as high as sixty feet and produce a stem 6" or more in diameter. The leaves are arranged alternately on the stem and are round or oval coming to a point at the tip. It is easily distinguished from American bittersweet which has fruits and seeds that are redorange (not yellowish) and fruits that develop in clusters at the ends of the branches, unlike the oriental bittersweet (shown at left) which has smaller fruit clusters found only along the sides of the branches.

Volunteer Year in Review

by Courtney Babb

Thank you to all who volunteered with NAP this year! With a field crew of only five and nearly 1,000 acres of park land to manage, NAP relies heavily on volunteer help to care for our city natural areas. This was a record year for volunteers! We have had 578 volunteers donate 2,150 hours of their time so far this calendar year. This is well above last year's record-setting totals at this time of 496 volunteers and 1,786 hours. This year some volunteers attended one or more of NAP's 29 workdays, while others worked independently on special projects, such as tending native plant exhibit gardens, propagating native plants from seed, controlling garlic mustard, controlling purple loosestrife, and collecting seed. Still others participated in prescribed burns or the breeding bird, butterfly, and frog and toad inventories. Whatever role you played as a volunteer in the NAP program, please know that it was an important one, and that we sincerely appreciate your efforts!

If you have never volunteered with NAP, we need your help in the coming year. We've somehow gotten by the past five years without you, but as the NAP program grows and we learn more about the natural areas around us, we increasingly recognize how much more there is to do to achieve NAP's mission of restoring, protecting, and championing Ann Arbor's natural areas. To accomplish this mission as successfully as possible, we need you! Please consider joining one of the natural features inventories or the prescribed burn crew next spring or attending a workday. Check out the volunteer calendar on page 5 for more information. If you want to help out and have a special skill or an interest not covered by our other volunteer opportunities, please call me at the NAP office.



Join the Season's End Celebration with Natural Area Preservation

Come help us thank our 1998 volunteers and celebrate the close of a successful field season! Join us for a potluck dinner and the NAP "Year in Review."

Tuesday, December 8, 1998 6:00-9:00 pm Cobblestone Farm barn, 2781 Packard Road

Please bring a dish to share and your own table service. NAP will provide beverages. **RSVP by Friday, December 4 to Courtney at 996-3266.**

Please let us know how many people are in your party and what dish you will be bringing. We hope to see you there!

VOLUNTEER STEWARDSHIP WORKDAYS

December 5, Saturday Volunteer Stewardship Workday Leslie Science Center, 10:00 am to 1:00 pm

Join us in cleaning native seeds collected earlier this season to prepare them for storage or sowing. The work will be indoors. Meet at 10:00 am inside the Leslie Science Center, 1831 Traver Road.

Because of the unpredictable winter weather, currently we do not have any volunteer stewardship workdays scheduled for January or February. However, we'd be happy to organize a special workday for a hardy group of interested volunteers (call the NAP office if this is you)! Regular workdays will resume in mid to late March, and a workday schedule will be included in the spring newsletter (coming out in early March).



SEEDLING PLANTERS WANTED

NAP has been given a very generous donation of black oak seedlings, and we need help immediately planting them in Ann Arbor's parks. If you're interested, please call 996-3266.

PRESCRIBED BURN TRAINING

NAP has an active prescribed burn program in the city's natural areas. Burn season runs from March to May. Burns are held on weekday afternoons. Anyone who attends training may participate. Burn training will occur on a weekday afternoon during the first or second week in March. Please call 996-3266 if interested.

NATURAL FEATURES INVENTORIES

NAP's Frog and Toad Survey will kickoff in early March. This is when the initial training session is held and survey routes are assigned. The Breeding Bird and Butterfly Surveys will kick-off later in the spring. Please call the NAP office if you are interested or for more information.



OTHER STEWARDSHIP OPPORTUNITIES IN OUR AREA

Adopt-A-Stream Program at the Huron River Watershed Council

January 9, 1-4pm, Stonefly Roundup Call Joan Martin at (734) 769-5971 to register.

Nichols Arboretum Workdays

December 12, January 9, February 13 Meet at the west end of Dow Field by the concrete bench. For more information call Bob Grese (734) 763-0645.

Nature Conservancy Workdays

Hillside Prairie (near Ypsilanti)
December 12
Ives Road Fen (near Tecumseh)
December 5, 19
January 9, 30
Call Liesl Bohan at (517) 332-1741 to register.

Natural Features Inventory Final Summaries

A fairly detailed update of this year's breeding bird, butterfly, frog and toad, and plant survey appeared in the Autumn edition of the newsletter, so you'll find only brief final summaries here. More detailed summaries will be mailed to survey volunteers in the coming months.



Prairie Warbler from Atlas of Breeding Birds of Michigan

Breeding Bird Inventory

Eighteen volunteers spent 115 hours surveying breeding birds in 29 Ann Arbor natural areas this year. Approximately 90

species were observed in all, an estimated 72 of them nesting. Some new sightings this year were a Black Tern at Foster, Swamp Sparrow at Furstenberg, Hooded Warbler at Bird Hills, and Prairie Warbler at Marshall. The Ann Arbor Landfill Property had the highest number of species reported (51).

Butterfly Inventory

Eleven volunteers spent 244 hours surveying butterflies in 12 Ann Arbor natural areas this year. Sixty species were recorded in all, two of them new to the inventory—a Variegated Fritillary and Dion Skipper. The highest number of species was reported in Marshall Park (48), closely followed by Barton Park (46).

Frog and Toad Inventory

Of the 45 volunteers involved in this year's inventory, 28 turned in data (over 900 observations in all!) and reported spending over 215 hours surveying frogs and toads in the Ann Arbor area. The number of calling populations of green frog (105) and gray treefrog (99) were up this year from last, while spring peeper (147), chorus frog (143), American toad (64), wood frog (14), and bullfrog (3) calling population counts were slightly down. Leopard frog (5) counts remained the same.

Plant Inventory by Bev Walters

To date the plant inventory has located 1028 plant species in the Ann Arbor area with 743 (or 72%) of these being native species. The 1998 season has continued to reveal plants new to the NAP inventory. The scarlet spires of cardinal flower (*Lobelia cardinalis*) were glowing at the landfill woods; the showy, pink-lipped flowers of obedient plant (*Physostegia virginiana*) were seen near Mallet's Creek cardinal flower in Cranbrook Park; and two native grasses, purpletop (*Tridens flavus*) and sand dropseed (*Sporobolis negelectus*) were located on a sandy knoll on the north side of town. Ellen Weatherby from Matthaei

plant (*Physostegia virginiana*) were seen near Mallet's Creek cardinal flower in Cranbrook Park; and two native grasses, purpletop (*Tridens flavus*) and sand dropseed (*Sporobolis negelectus*) were located on a sandy knoll on the north side of town. Ellen Weatherby from Matthaei Botanical Gardens tipped us off to a population of Ohio goldenrod (*Solidago ohioensis*) and the sharp eyes of Tony Reznicek from the University of Michigan Herbarium spotted rough-leaved dogwood (*Cornus drummondii*) along the river in Gallup Park. It's surprising that in our fifth year of scouring the Ann Arbor area for plant species that this many new records are being found...but there's more!

I was particularly excited about turning up a nice population of annual false foxglove (*Aureolaria pedicularia*) at South Pond. I was on the lookout for it because while rummaging around for historical records in the U of M Herbarium last winter, I had seen a specimen collected in 1915 in a woods just south of this locality. I'm convinced that its reappearance is due to the controlled burning of the South Pond savanna.

Less spectacular, but still noteworthy, is the discovery of Ontario aster (*Aster ontarionis*) in Mitchell Scarlett woods. This unassuming white-flowered aster of damp woods has not previously been documented in Washtenaw County.

Alert conservation worker Kathy Sorensen turned up a state "special concern" species, lily-leaved twayblade (*Liparis lilifolia*), at Swift Run Drain. A state endangered plant, pink turtlehead (*Chelone obliqua*), was recently found in Argo Park. This is the only existing location of the species in all of Michigan!

I especially enjoy visiting the sites where NAP has been active with controlled burning and clearing invasive species because something new is always turning up. The upland blueberry (*Vaccinium pallidum*) is one of the few blueberries that doesn't like to have its roots wet. Although known from a few other sites, this year it appeared at Foster Savanna for the first time. Also, northern blazing star (*Liatris scariosa*) was a new arrival at South Pond this year. I expect that as the NAP program continues burning and clearing that more good things will be showing up in our natural areas.

Huron Parkway Planting

(continued from page 3)

Recently, after noting the success of ecological restoration work by NAP, as well as Professor Bob Grese's work on Dow Prairie at Nichols Arboretum, the DFC realized that a native prairie planting might be the most appropriate way to accomplish the goal of naturalizing the medians without creating potential traffic hazards.

The DFC pledged their support to the concept, entitling it the "Huron Parkway Native Planting Project," and agreed to focus on the medians north of Glazier Way to the Hubbard Road intersection. However, the Dean Fund has restrictions on the endowment that will not allow us to use it to purchase forbs and grasses. The endowment can provide funding for site preparation, herbicide applications and maintenance, though, and we are raising funds from other sources to purchase the necessary plant material. So far for this initial phase of the project, the DFC has secured \$5,000 from the current Park Maintenance and Repair Millage, as well as nearly \$8,000 of mitigation funds from the adjacent University Commons development on Huron Parkway at Glazier Way. We will also be seeking corporate sponsorship, especially from neighboring businesses which have been involved in their own prairie establishment projects.

Many people from within and outside the Parks Department have been involved in the project, including NAP. NAP is providing a plant list of desirable native forbs and grasses (Michigan genotypes) and looking at the best method of site preparation, the timing of such work, and the proper season for initial planting/seeding. Additionally, they are contacting regional nurseries to procure the requisite native plant material and will help guide us through initial maintenance phases, which will involve periodic burning and/or mowing. This project will certainly have some unique management considerations which makes it an exciting one for all involved.

Our current plans are to spend most of next spring and summer doing herbicide work along the project area to kill off turfgrass on the medians involved and deplete the weed seeds that will germinate after the grass dies off. We hope to be able to do the initial seeding in fall 1999. Eventually, if the first phase of this project is successful, we would like to extend the native plantings to the medians south of Glazier down to the Huron River.

Native Plants to Kick Your Winter Ailments

(continued from page 3)

a teaspoon of slippery elm powder to hot water with sugar or honey to taste. For burns, boils, minor wounds, and irritated skin make a paste from the powder and place on the affected area. Please be careful, however. Some people are allergic to slippery elm.

Black cherry (Prunus serotina) fruit contains high amounts of vitamin C and benzaldehyde. It is easiest to find the fresh fruit in summer when it's in season, but you might be able to find dried cherries at your local co-op or health food store. As a serving suggestion, add them to lemonade or cereal—they taste great and do wonders for your health.



from Michigan Trees

To ease flu aches try meadowsweet (Spiraea latifolia), nature's aspirin. This plant contains salicin, one of the key ingredients in aspirin. Make a meadowsweet tea by adding a teaspoon or so of the dried herb to hot water and steep for five to ten minutes. Meadowsweet is also good to relieve pain from ailments such as heartburn, Wildflowers Guide gastritis, peptic ulcers, and urinary tract infections.



from Peterson

For more information about botanical remedies, check your local library and bookstores. And remember, never consume any part of a plant without being absolutely sure it is safe.

A Seed of Success

by Jennifer Maigret

"Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have a seed there, and I am prepared to expect wonders." --Henry D. Thoreau

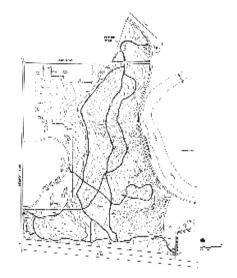
Seed-sowing is one of the many restoration activities NAP coordinates. During the cooler autumn days NAP crew members revisit many parks that hosted colorful displays of flowers during the hot months of summer, this time with seed collection bags in hand. Despite Thoreau's conviction of inevitable wonders, seed-sowing may test one's faith in the expectation

Restoration Focus: Bird Hills Nature Area

by Kathy Sorensen

The NAP crew and volunteers have focused our efforts on restoring Bird Hills Nature Area this past year. With over 1000 acres of natural areas throughout Ann Arbor, it was difficult to decide where to concentrate our efforts. So, how did we decide? First, large tracts of land are most likely to contain all the components an ecosystem requires to maintain itself over time. Bird Hills is the largest city-owned natural area in Ann Arbor, comprising 155 acres. Second, we looked at biological diversity. Due to its varied topography, Bird Hills contains several ecosystem types, many of which are richly diverse and unique. Our staff botanist, Bev Walters, has found this area to be one of the most diverse in the city in terms of the number of plant species and the relative rarity of several of the species.

Bird Hills contains dry sites with great oak-hickory woodlands and mesic, or moist, sites where beech (*Fagus grandifolia*) and sugar maple (*Acer saccharum*) predominate. In the east along Huron River Drive is a series of ravines with natural seeps which is home to wetter species such as skunk cabbage (*Symplocarpus foetidus*), marsh marigold (*Caltha palustris*), spicebush (*Lindera benzoin*), and bishop's cap (*Mitella diphylla*). To the north of Bird Road is a lesser known part of Bird Hills occupied by an old field, savanna and pond/wetland area. Some of the plants in Bird Hills are fairly common but are



Bird Hills is located in the northwest part of town, bordered on the south by M-14 and the east by Huron River Drive. The main entrance to the park is on Newport Road, just north of the bridge over M-14. There is a kiosk at this entrance with information about the history of the park, interesting sites to explore, and photographs. Bird Hills is a popular park for hikers, runners and dog walkers (bikes are not allowed). It is a beautiful park with many trails and a variety of sites to see.

noteworthy because of their large populations. These include wild ginger (*Asarum canadense*), flowering dogwood (*Cornus florida*), witch hazel (*Hamamelis virginiana*) and large flowered bellwort (*Uvularia grandiflora*). Other plants are less common in other parks and some may only be found in Bird Hills. Examples are blue cohosh (*Caulophyllum thalictroides*) and twin leaf (*Jeffersonia diphylla*) (state listed as special concern).

NAP has worked with numerous groups and individuals to restore lower quality areas of Bird Hills during the 1998 season. Most of the work involved removing invasive, non-native plants which result in the loss of native plant species due to competition for light, water and nutrients.

Students As Stewards: NAP and the Leslie Science Center worked jointly on a grant-funded program called Students As Stewards. Through this program nearly 60 junior high students from **Middle Years Alternative (MYA) School**, led by teacher **Jennifer Puntenne**, adopted a site in Bird Hills near Down-Up Circle last spring and fall. These students visited the site and then developed their own stewardship plan. They later carried out the plan as a class project. They removed periwinkle, honeysuckle and buckthorn and planted native seed and acorns in their place. They also did a wonderful job tidying up the trails at the Newport Road entrance.

Garlic Mustard: An individual volunteer, **Susan Carrara**, was part of our garlic mustard watch this spring. She helped map and remove this non-native plant from the north-northeast area of the park. In addition to her work, staff pulled and torched garlic mustard along Huron River Drive and the northeast part of the park. NAP also held a volunteer stewardship workday in late May to control garlic mustard. NAP staff later sowed native seed in some of these areas.

Shrubs (honeysuckle, buckthorn, privet, multiflora rose): This fall a group of graduate students from the **University of Michigan's School of Business** and a group from the junior class at **Greenhills School** removed enormous amounts of honeysuckle and buckthorn from the area between M-14 and the southern trail. We continued work in the same area on a weekly basis with a group of four **missionaries from the Church of Jesus Christ of Latter Day Saints**. Additionally, the missionaries sowed native seed and acorns into this site to help restore native vegetation. They also removed invasive shrubs from an area south of the loop trail down to the stream seeping out of the deepest ravine in the park.

Burning: The area north of Bird road was burned this past spring in an effort to remove non-native shrubs and grasses. We hope that we'll get a good response from the native seeds that are lying in wait in the soil.

Mother Told Me Never to Pick up Hitchhikers, but Sometimes I Just Can't Help It

by Greg Vaclavek

I come in from a winter hike, take off my cold wet boots, pull a chair up to the fireplace, and spend the next half hour picking those darn sticky seeds out of my favorite flannel. Precursors to our modern day Velcro, these seeds sink their tiny hooks into fleece, fabric, feathers and fur for a free ride to a new home. Their method of dispersal may be bothersome, but it's effective. In this article I hope to shed some light on the sticky subject of burs, hitchhikers and sticktights. I don't claim to be an expert, so try not to cling to my words.

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White Avens (Geum canadense)

My personal favorite, white avens is a common component of woodlands, thickets and shady yards. It grows one to two feet high and flowers in the summer. The five-petaled white flowers are about a half inch wide and borne on the ends of the branches. Following pollination, a bristly ball composed of numerous seeds forms. The leaves are highly variable from alternate, three-parted stem leaves to the lower leaves which are pinnately lobed or divided into segments. The lower leaves often stay green through the winter. There are several species of avens but this one is most common.



Enchanter's Nightshade (Circaea lutetiana)

Enchanter's nightshade is a common associate of the avens found in woodlands and thickets. It is a perennial; is one to two feet high; has small white flowers that bloom in the summer; and has oval, shallowly-toothed leaves. The flowers are spaced on slender spikes from the top of the plant. Both the leaves and spikes are oppositely arranged. By the time the seed is ripe, many of the leaves have died back.



Tick Trefoils (Desmodium spp.)

There are several species of tick trefoils native to our area. They have leaves in threes and clusters of small pink and purple flowers in the summer. The fruit resembles flattened bean pods but often breaks into individual segments. The pointed-leaved tick trefoil is a common woodland plant but the other species tend to grow more in the open. The name "tick trefoil" comes from "tick," referring to the sticky seed, and "tre-foil," meaning three-foliaged.



Agrimony (Agrimonia gryposepala)

Agrimony is a perennial plant that grows one to four feet high with small yellow flowers in the late summer. The flowers and seeds develop on long slender spikes close to the stem. The leaves are composed of numerous leaflets, much like a rose leaf, but more diminished toward the base. The seeds are somewhat conical with spreading bristles around the top. It can be found in lightly shaded woods and thickets.



Beggar's ticks (Bidens spp.)

There are several species of beggar's ticks found in our area in both wetland and upland sites. They are all upright plants reaching one to four feet high. The inconspicuous flowers have few small, yellow petals. The leaves are narrowly oval, toothed and oppositely arranged on the stem. Each flower produces numerous seeds, each with two to four barbed prongs that cling to clothing.



Beggar's lice (Hackelia virginiana)

By far my most dreaded stickseed, this plant is common throughout dry woods and thickets. It is a widely branching perennial growing one to four feet high. The leaves are oval, not toothed, and taper at both ends. In summer tiny white flowers form one-sided spikes. The leaves are usually gone by the time the seed is ripe, leaving the plant's tiny, prickly burs difficult to avoid. The many burs on horizontal branches often deposit numerous seeds that can certainly ruin a good sweater.



Burdock (Arctium minus)

Most people are familiar with this common, non-native plant that thrives in disturbed open areas. Burdock grows from two to seven feet and has large, broad leaves and purple flowers in the summer. In the fall its clusters of brown, bristly burs should be avoided at all costs. Although it might seem like good fun, burs are not toys. Putting them in your hair or throwing them at a friend can be dangerous and may result in an itchy rash.



milkweed seeds from Faith in a Seed

A Seed of Success (continued from page 7)

of things to come. When collecting seed, it can be difficult to believe that something so small and seemingly insignificant can grow and produce the very same features that made its parents successful enough to produce it, especially if one realizes all that must happen for a seed to grow into a mature, seed-producing plant, itself.

All angiosperms (flowering plants) produce seed after successful pollination. Seeds are simply small packages of endosperm (nutritive tissue surrounding the embryo) and genetic instructions contained within a protective coating. When a system is highly disturbed by anything from a natural disaster to the invasion of non-native plants, seeds are the means by which plants can reestablish populations. In fact, NAP depends on seeds in the seed bank (dormant, viable seeds in the soil) and seeds dispersing from nearby plant populations to revegetate sites newly disturbed by prescribed burns or non-native plant removal. At some sites NAP sows additional native seed that staff and volunteers have collected from nearby natural areas.

Recently NAP witnessed seed-sowing successes in a few natural areas. An inventory list of the plants in Ann Arbor's parks was compiled before NAP began collecting and dispersing seed. In

several parks plant diversity was lower than expected and some generally common local plants were absent. Some of the areas were planted with native seed collected from neighboring parks, including those common but absent species. Two years later some of these plants have been found in those areas—a seed of success! Kuebler Langford is the best example,

with the discovery of young grey-headed coneflower (*Ratibida pinnata*), blue vervain (*Verbena hastata*) and thimbleweed (*Anemone cylindrica*). Although these are the easiest successes to observe, there are likely countless other cases that have gone unobserved. It is from the tangible examples, however, that faith in seed-sowing can be reaffirmed and become a harbinger of all of the wonders yet to come.

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