

NATURAL AREA PRESERVATION NEWS

Volume 1, Number 1

Spring 1996



The mission of the Natural Area Preservation Program is to preserve, protect, and care for the natural areas of Ann Arbor, especially those in the City's park and recreation system.

Burn Baby Burn

With spring in the air, restoration ecologists throughout the Midwest are oiling their Indian pump sprayers, filling up their drip torches, and avidly watching The Weather Channel for regular updates. As the winter snows recede, we rejoice that burn season is upon us once again. The Natural Area Preservation staff is no different from our counterparts in other organizations—we have a list of sites where we hope to conduct prescribed ecological burns from mid-March through May.

Why Burn?

Historically, fire was a common feature of the Midwest landscape. Prairies and woodlands alike burned with some frequency, as a result of lightning strikes or early efforts by Native Americans to clear the land for agricultural use or to flush animals from their protected sites. Since the time of widespread European settlement (in the early 1700's), permanent dwellings have created something of an incompatibility with fire. People built houses in fire habitats and, in order to save their property, began to suppress fire, seeing it as a threat to their well-being. As cities grew, we actively continued this practice.

Fire's exclusion has had a dramatic effect on our landscape. Many ecosystems are vitally linked to fire. Prairies are perhaps the most fire-adapted ecosystem in our area. Fire controls the invasion of non-prairie plants by stimulating prairie species to form a thick sod that prevents woody seedlings from becoming established, while simultaneously killing the portion of the woody plant that is exposed to the fire. Since the roots of fire-adapted plants may grow to 20 feet deep, these plants are not harmed. Prairie plants tend to thrive in warm or hot conditions. Fire burns off dead litter (old grasses and leaves), allowing the sun to heat the soil quickly. By extinguishing fires before they spread, we have allowed many invasive weeds and woody plants to "out-compete" the prairie plants. The spread of these invasives has converted incredibly diverse, species-rich sites into near monocultures of non-native plants.

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Natural Area Preservation is a program of the City of Ann Arbor Department of Parks and Recreation.

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For up-to-date information on stewardship activities call the 'hotline' at 313-996-3266

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Full Speed Ahead!

Welcome to the first ever Natural Area Preservation newsletter! No one is more excited by this milestone than I. It means that after 27 months of picking up steam, the Natural Area Preservation program is finally up and running at full speed! There's been tremendous growth in NAP activities in the past two years, and with the momentum we've now gained, there promises to be still more in the months ahead.

Of course, this has only been possible with the help of all the volunteers and all the staff who have pitched in to multiply our efforts. In the past two years, I've gone from being the entire NAP program to being just the Coordinator of NAP. That means less time in the field and more time in the office, but it also means that we as a team are accomplishing many times what I alone could do.

These are exciting times, as you will read throughout this newsletter. New grants, new projects, new staff, new directions and new energy. 1996 will be a year of tremendous opportunity for us. Come along, it should be fun!

-Dave Borneman, Natural Area Preservation, Coordinator

Volunteer Opportunities

Prescribed Burns

In March, April and May, be on call to aid in prescribed burns. We need any interested volunteers to: complete a training session on the 20th of March, be able to join the NAP crew on short notice during the week, and have that *spark* of interest in this method of ecological stewardship. See the front page article and the calendar for more details.

Inventory Kick - offs

How about a little detective work? NAP is inventorying breeding birds, frogs, toads, butterflies, and plants in Ann Arbor natural areas. Once we know what we have we can better protect them. Volunteers will be trained in species identification. The inventories are conducted throughout the summer. Check the calendar for the kick-off schedule.

Workdays

All around Ann Arbor a volunteer corps will have a mission to seek out and destroy invasive plant species within our parks. Set aside three hours on an occasional Saturday and work with NAP staff and other volunteers removing invasives from the park natural areas. Check the calendar for dates and locations.

Garden

A seed garden will be started at the Project Grow site at the Leslie Science Center. The garden is starting from scratch this year --just soil and seed. Native plants will be grown here, serving as a demonstration plot as well as a seed source. We need help in many ways and, a workday is scheduled to clear the plot. Volunteers are also needed to lead this project. Interested?

See the volunteer calendar on page 5

Native Species Highlight:

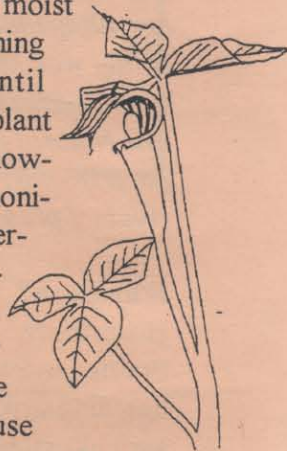
Jack-in-the-Pulpit

Arisaema triphyllum

Jack-in-the-Pulpit is an oddly shaped, flowering plant. It is a member of the Arum, or "hooded floral leaf" family. Plants in this family (except the Sweetflag) have a flower that is partially shielded by a special leaf called a spathe. In the Jack-in-the-Pulpit the spathe is large and hoodlike, curving over the flower. The spathe is colored green and purple, and is usually striped. You will find Jack-

in-the-Pulpits in moist woodlands, blooming from March until June. In fall, the plant is easy to find, showing a bright red conical cluster of berries. Jack-in-the-Pulpits should not be touched or eaten, as they have been known to cause a delayed burning sensation on any skin coming in contact with the plant. Native Americans used to mash the root into a pulp and apply it to the forehead as a headache remedy, probably because their burning skin distracted them from their head pain.

The MDNR has requested that Jack-in-the-Pulpits be treated with care even though no laws protect them. They are a delicate plant, so please do not pick or molest them. Jack-in-the-Pulpits are found in most Ann Arbor Parks containing woodlands, such as Furstenberg, Black Pond Woods, Bird Hills, and Marshall Parks.



NAP-penings

Grants

NAP has just turned in a pre-proposal for the Clean Water Act Section 319 Grant from the EPA. If we are awarded the grant, the money will be used to implement management plans for the Sister Lakes watershed. The management plans will advise homeowners and businesses of proper landscaping, construction, and waste disposal procedures to improve the water quality of the lakes.

NAP has just been awarded a Michigan Department of Natural Resources Natural Heritage Program Grant. The grant is funding the production of a booklet outlining the natural features of the Huron River Corridor. The educational booklet will be available to the public. The book will be a compilation of the inventories, and maps that have been completed by NAP.

NAP has been working on a project funded by the Michigan Department of Natural Resources Community Forestry Grant (awarded in 1994). The project is developing a model forest management plan. The project has four major goals: 1) evaluate the ecological health of an individual woodland, 2) establish permanent monitoring plots within the woodland, 3) develop a set of objectives for that woodland based on community discussion, and, 4) recommend cost effective plans to achieve the objectives determined for the woodlands. The Black Pond Woods is the woodland to be studied, and monitoring plots have already been set up there.

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from page 1....Burn Baby Burn

By reintroducing fire, we are attempting to mimic the natural process so prevalent just a short time ago.

What's Involved?

Prior to conducting our burns, Natural Area Preservation staff prepare detailed maps showing what areas will be burned, where fire breaks will be located, and what neighborhoods might be affected by the smoke. We also prepare burn plans that provide detailed information on the ecological benefits of the burn for that specific site, the ideal wind conditions and corresponding ignition pattern, the number of people and equipment needed, and a host of emergency phone numbers. We discuss the plans with, and get approval from the fire marshal, and notify those living adjacent to the parks of our plans. And then we wait. Weather conditions--temperature, wind direction and strength, humidity, and ground moisture--must be ideal before we proceed. The fire is under control at all times with the help of well equipped and fully trained staff.

Where Will We Burn?

There are quite a few prairie and oak savanna remnants throughout Ann Arbor. Most remain along the river, and this will be where we concentrate our efforts. Weather permitting, the NAP crew will conduct prescribed burns adjacent to the Huron in Bandemer, Barton, Foster, Furstenberg, Gallup, and South Pond Parks. We also hope to use fire to control invasive species in Brown and Marshall Parks, and in the Swift Run Drain and to restore an oak savanna in Black Pond Woods.

Sound Interesting?

Volunteers can participate with the burns in a limited capacity. However, you must complete our burn training program on Wednesday, March 20 from 1:00-5:00. All burns will be held on weekdays, and you will need to call our volunteer hotline (996-3266) daily during the burn season to find out if conditions are suitable to burn that day. Please RSVP by the 18th of March if you would like to attend the training, or if you have questions.



Gardening With Native Plants

Native plants are a joy to garden with. They can be used in the garden in two distinct ways -- in a traditional formal or manicured setting, or to cultivate a "wilder" landscape; that is, by blurring the distinction between natural areas and tended urban or suburban sites.

Native Michigan Plants

Native plants are quite beautiful, and their use reminds us of the rich array of plants that have been growing in southeast Michigan for many years. They are ideal for creating wildlife habitat and many plants offer an optimal food source for birds, insects, and small mammals. Native plants are closely attuned to changes in local weather and light conditions. Their use-- the die-back of some plants and the emergence of others-- helps to tune us into small seasonal changes we might otherwise miss. By using natives, we also promote conservation efforts by helping to preserve the genetic diversity that exists within the plant population. In other words, the use of native plants helps to ensure the continued success and presence of local genetic material.

At home

Following are some suggestions for plants to use in your garden. The trees and shrubs have quite broad growing conditions. "Woodland Plants" prefer partial shade and rich, moist soils, while "Prairie Plants" thrive in full sun and well-drained soil. Plant either established seedlings or try to germinate seeds that you collect on your own or purchase locally. Whichever method you pursue, please don't collect plants or seed on public property or on private property without the express permission from the owner! If you would like a more complete list of plants to landscape with, call the NAP staff and ask for our brochure on native plants.

Trees

Beech, American	<i>Fagus grandifolia</i>
Dogwood, Flowering	<i>Cornus florida</i>
Hop-hornbeam	<i>Ostrya virginiana</i>
Musclewood	<i>Carpinus caroliniana</i>
Bur Oak	<i>Quercus macrocarpa</i>
Tuliptree	<i>Liriodendron tulipifera</i>

Shrubs

Buttonbush	<i>Cephalanthus occidentalis</i>
Elderberry, American	<i>Sambucus canadensis</i>
Ninebark	<i>Physocarpus opulifolius</i>
Serviceberry, Allegany	<i>Amelanchier laevis</i>
Viburnum, Maple-leaf	<i>Viburnum acerifolium</i>
Witchhazel	<i>Hamamelis virginiana</i>

Woodland Plants

Bloodroot	<i>Sanguinaria canadensis</i>
Columbine	<i>Aquilegia canadensis</i>
Doll's-eyes (red)	<i>Actaea rubra</i>
Goldenrod, Bluestem	<i>Solidago caesia</i>
Joe-pye weed	<i>Eupatorium maculatum</i>
Turtlehead	<i>Chelone glabra</i>

Prairie Plants

Blazing Star, Rough	<i>Liatris aspera</i>
Goldenrod, Showy	<i>Solidago speciosa</i>
Mountain-mint	<i>Pycnanthemum tenuifolium</i>
Prairie dock	<i>Silphium terebinthinaceum</i>
Big bluestem grass	<i>Andropogon gerardii</i>
Indian grass	<i>Sorghastrum nutans</i>

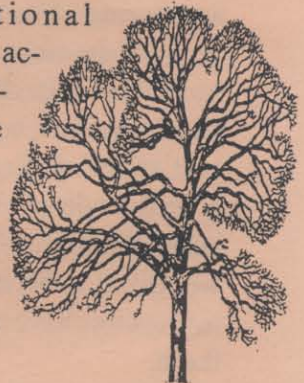
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NAP-penings

NAP Presentations

Earth Day activities will be held on April 21, from 1pm - 5pm at the Leslie Science Center. Earth Day is a celebration of the Earth, with programs and festivities in the interest of preserving it. Participating environmental organizations will have booths set up where Earth friendly living information will be available. There will also be food, entertainment, and many activities for children. The All Species parade (sponsored by the National Wildlife Federation) will end up at the Leslie Science Center. Remember - ride a bike or take the bus to Earth Day!! Come visit our display under the exhibit tent!

The Grand Opening of Bandemer Park will be held May 18 and 19, (9am - 5pm), at this north Main Street park. The event will be an outdoor expo, with low impact camping equipment on display. A canoe and kayak demonstration will also be held. A feature in this park is a handicap-accessible boat dock. Local environmental groups, including NAP will host informational booths and activities during the event. NAP has scheduled walks at 11:00 each day.



Thanks!

A volunteer appreciation dinner was held in January as a way of saying "thank you" to all those people who helped throughout 1995. The dinner was a ton of fun, with great food and company. All volunteers involved with the program have really helped us to go "full speed ahead." There were a few who went above and beyond our expectations. In recognition of these volunteers a certificate of appreciation was presented: Pauline Nagara, Gwen and John Nystuen, Dorothy Blanchard, Jerry Paulson, Roger Wykes, Don Botsford, Ted Hejka, and the Professional Volunteer Corps. Once again thanks to everyone. We look forward to working with you again this year.




Other opportunities

Volunteers are needed to assist with the Earth Day Festival held at Leslie Science Center April 21 from 1 - 5 pm. The festival organizers depend on volunteers to help the day go smoothly. There are many different volunteer opportunities. The festival has seven areas (air, water, energy, wildlife, food, solid waste, and trees) and each area needs volunteers. In addition, we need help with set-up, registration, information booths, clean-up, and staffing the stations. Each shift is two hours. Please contact Rebecca Kanner at the Ecology Center to sign up: 761-3186.

NAP VOLUNTEER CALENDAR SPRING 1996

March

11 Monday 7 - 9 pm.
Frog and Toad Inventory Kick-off -
at the Leslie Science Center. 

20 Wednesday 1 - 5 pm.
Prescribed burn training. Volunteers must be available on short notice during the week to assist with the burns. Prescribed burns will take place in March, April and May. All interested volunteers must attend this training session. Please call and let us know by March 18th, if you plan on attending.


23 Saturday 10 - 1 pm.
Furstenberg Park Workday. The project for this workday will be the removal of invasive species.

30 Saturday 10 - 1 pm.
Workday at Foster Park - off Huron River Drive just west of Barton Park parking lot. Work will take place in the savanna area and will be the removal of invasive species.

April


20 Saturday 10 - 1 pm.
Bandemer Park Workday. The Professional Volunteer Corp (PVC) will join us in our Earth Day event cutting a trail. All are welcome.

21 Sunday 1 - 5 pm.
Earth Day Celebration at Leslie Science Center.

22 Monday 7 - 9 pm.
Breeding Bird Inventory Kick-off - at the Leslie Science Center 


May

4 Saturday 10 - 1 pm.
Neighborhood Workday at Sylvan Park - Invasive species removal.

6 Monday 7 - 9 pm.
Butterfly Inventory Kick-off -
at the Leslie Science Center. 

18/19 Saturday & Sunday
Bandemer Park Grand Opening -
and Outdoor Expo.

June

1 Saturday 10 - 1 pm.
Garden Ground-breaking Workday at the Project Grow gardens at the Leslie Science Center. This is the start of our seed and demonstration garden. Please bring tools. 

15 Saturday 10 - 1 pm.
Workday at Marshall Park -
Invasive species removal.

29 Saturday 10 - 1 pm.
Neighborhood Workday at Dolph Park - Invasive species removal.

Please call the volunteer stewardship hotline for updated information and directions to these events: 996-3266. If you can call and let us know you plan to come to any of these, it would be appreciated !!

1996 Inventory Highlights

Plants

With two field seasons behind us, our efforts to inventory every **plant** species in the natural areas has yielded some very interesting results. A total of 926 species were found. Of these, 675 or 73% are native to Michigan (although a few of these, such as Paper Birch and White Pine, can really only be considered *native* to northern Michigan). That's average for invasives in Michigan - about 1/4 to 1/3 of our flora is non-native.

Among the natives are an impressive 15 species listed as either Threatened or Special Concern in Michigan. The 4 Threatened species include: Leiberg's panic grass, American burnet, White Lady's slipper, and Common Valerian. The 11 Special Concern species include: Hairy angelica, Frank's sedge (this is the first recording of this plant in the county), James' sedge, Hairy-fruited sedge, Knotweed dodder, Twinleaf, Lily-leaved twayblade, Red mulberry, Prairie rose, Blackhaw) and Car-rion-flower.

Furstenberg Park topped the list with 272 total species, 225 of which are native to Michigan. This total doesn't even include the prairie restoration area of the park. The only other site with more than 200 native species is just across the river, in the Gallup Park Wet Prairie, along the bike trail. But while Furstenberg Park covers 39 acres, this tiny remnant of native Michigan flora is only about 5 acres in size, with 259 total species! That's a lot of diversity! Other parks with high numbers were: Huron Parkway Park -- 191 natives, and Bird Hills Park -- 179 natives.

Now counting...

Our first season of butterfly, frog, and breeding bird inventories went very well. After our kick-offs last spring, we had 30 volunteers signed up for frog surveys, 20 for butterflies, and about 20 for breeding birds.

Frogs and Toads

This year the Michigan DNR is launching a state-wide **frog and toad** survey organized much like our own. We will, of course, be cooperating and assisting with this effort, but I'm proud to say that our 1995 survey here in Ann Arbor was launched one year before the state's! Of the 11 species of frogs and toads found in southern Michigan, 8 were found in the immediate Ann Arbor area in 1995. Northern spring peepers were the most commonly reported species, occurring in 23 of the 48 areas surveyed. The other seven species found were: Western Chorus Frog (21 sites), Eastern gray treefrog (16), Green frog (13), American toad (12), Wood frog (3), Bull frog (3), and Leopard frog (2). I suspect the Wood frogs are more common than indicated here and we just got out too late last year to hear all of these early-calling herps! We'll be more prompt this year with our March 11th kick-off.

Birds

Ann Arbor is also on the cutting edge regarding **breeding bird** inventories. Last year, Mike Kielb read in an ornithological newsletter that the City of Washington D.C. was boasting that its 1994 effort was the first organized city-wide breeding bird census in the nation. OK, maybe they beat us by a year, but that still makes Ann Arbor #2 in the nation! Volunteers identified 90 resident bird species in 30 parks and natural areas, with an estimated 87 of those nesting here. Some of the noteworthy findings were Black-crowned night herons observed in Bird Hills and Brown Parks; Green herons in Dolph and Lakewood Parks and the Matthaei Botanical Gardens; Ruffed grouse observed in Marshall Park; Brown creepers, Red-breasted Nuthatches, and Cerulean warblers exhibiting territorial behavior in Saginaw Forest; American redstarts doing the same in Dolph Park; Yellow-breasted chats observed in Brown and Barton Parks and the N. Maple/M-14 site; and Savanna sparrows with young in Brown Park.

The hot spots for birds in Ann Arbor were: Nichols Arboretum with 47 summer resident species; Dolph Park (46); Brown Park (45); Bird Hills (43); and Saginaw Forest (42). Five species of breeding birds which were expected but not found in the 1995 census include: Eastern phoebe, Horned lark, Purple martin, White-eyed





vireo, and Chestnut-sided warbler. But we'll get 'em this year following our kick-off, April 22.

Butterflies

If Ann Arbor is #2 in breeding bird surveys, I'll bet we're #1 in butterfly surveys! Fifty species were observed in 17 parks and natural areas in 1995. The most common species were: Cabbage Whites (15 sites); Pearl Crescents (12); Little Wood Satyrs (12); and Eastern Tiger Swallowtails (10). The hot spots for butterflies in 1995 were: N. Maple/M-14 school property (29 species); Pioneer Woods/Greenview Park (27); and Barton Park (25). We've all got a lot more to learn about butterfly identification. Join us for the kickoff on May 6th.

One of the butterflies found in Barton and Greenview Parks, the Wild Indigo Duskywing, is listed as Special Concern in Michigan. However, it may not be as rare as one might think. It seems the Wild Indigo Duskywing may nowadays be better called the "Crown Vetch

Duskywing" since it is adapting quite well to feeding on nectar from Crown Vetch plants. Ironically, Crown Vetch is one of those non-native, invasive exotics you hear us complaining about. This could present quite a dilemma for those of us trying to preserve both the native flora *and* the native fauna of southeastern Michigan!

But it is just this kind of information on individual species and populations that makes all of our inventories so important. These methodical, organized, baseline inventories in which so many of you participate generate *real* scientific data and new insights into the population trends of local plants and animals. Additionally, if we don't know what is at a site, we can't do a good job of preserving and caring for the biodiversity of that specific site. So, a big **thank you** to all our inventory volunteers - and an invitation for the rest of you to join us in 1996!

These are just a some of the highlights from the 1996 Inventory. For more complete results, contact Dave Borneman at 994-4834.

**WE'D LIKE TO ASK YOU A FEW QUESTIONS...
PLEASE COMPLETE AND RETURN THIS FORM... THANKS!!**

Name: _____ Phone: Day: _____

Evening: _____

Current Address (if wrong on label) _____ Email: _____

Do you wish to remain on our mailing list? YES NO

I am interested in helping with: (**Remember no amount of time you can give is too little**)

_____ Workdays (Brush cutting, invasives removal)

_____ Garden Project

_____ Prescribed Prairie Burns

_____ Odd Jobs (one afternoon a week)

_____ Seed Collection

_____ Plant Inventory

_____ Butterfly Inventory

_____ Breeding Birds Inventory

_____ Frog/Toad Inventory

_____ Artistic/Design (for exhibits, plant sketches)

_____ Staffing exhibit booths

_____ Carpentry (simple things)

_____ Other: _____

I have special skills that NAP may be able to use: (for example: computer & programming knowledge/ native gardening knowledge, of native plants and landscapes....) _____

Please add to your mailing list: _____

Please mail this back, as soon as possible, to Catriona Mortell: City of Ann Arbor, Dept. of Parks and Recreation, 415 West Washington St., Ann Arbor, MI 48103, 996-3266

Focus:

Marshall Park

Marshall Park is located on Dixboro Road between Plymouth-Ann Arbor and Ford Roads, just northeast of the city. The park is within the Fort Wayne moraine, and its high and low areas support a variety of plant species. Marshall is 87 acres, with 217 plant species are found here of which 167 are native.

The entrance to the park is off Dixboro Road. When you leave the parking area and enter the park, you will find yourself in an lawn area, with large open grown oaks. Until about a year ago, a caretakers house was located here. Heading to the northwest, you will find the trail leading into the woods. This trail will lead you along the top of a ridge, and then sharply downhill to the remnants of a pine plantation. Continuing along the trail, you will enter a field that was once grazed. The field areas have remnant prairie and savanna species. There are also sumac and horsetail, and if you look carefully, you may find signs of deer among the sumac. Large sassafras trees mark an old fencerow. The trail will lead you to the southeast, back up the hill to the parking area. It is a true natural area, without a paved trail, rest rooms, or picnic tables. Please be careful while exploring, the trail is not always clearly marked, and there are some steep trails in some areas.

Look for the NAP crew there this summer, where they will be removing invasive species threatening the park.

City of Ann Arbor
Department of Parks and Recreation
Natural Area Preservation
415 West Washington St.
Ann Arbor, MI 48103



Parks & Recreation
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