RIVER BEND WILDLAND TRUST

2014 BLACK HAWK BIO BLITZ WPF REPORT

14-014W

Grantee:

Interstate RC&D (River Bend Wildland Stewards)
Sam Moyer
2911 36th Street
Moline, IL 61265

Timeframe of report – Sept 2013 – Dec 2014

Event – Black Hawk Bio Blitz June 27-28, 2014

Contact:

Sam Moyer
309-912-4773
sam.moyer@me.com
River Bend Wildland Trust rbwt.org

Project Objective:

The River Bend Wildland Trust (RBWT) hosted a Bio Blitz at Black Hawk Forest Nature Preserve and larger Black Hawk State Historic Site in June 2014. This Bio Blitz was intended as a citizen environmental education project, bringing together scientists, education experts, naturalists and the public to encourage outdoor exploration and enhance our understanding of biodiversity through hands-on learning. This event involved many participants over a specified length of time (24 hours) in a coordinated effort to locate, identify, and count as many species as possible. Local school groups and members of the public were invited to attend the event and participate through various biology surveys and species identification demonstrations given by professional biologist and trained naturalists. We recruited over 25 professional field biologists, including 3-4 government agencies and 4-5 colleges/universities, to assist in the species identification. These biologists divided up into 7 or more teams to cover various taxonomic groups including: birds, mammals, reptiles and amphibians, fish, aquatic invertebrates, terrestrial invertebrates and plants. The results will be used to provide baseline measurement of the biodiversity of the 150-acre high quality upland forest and adjacent Rock River and will serve as a useful tool to guide future management and protection needs at Black Hawk Forest Nature Preserve.

Completed project description:

The popularity and success of this BioBLitz has positioned RBWT as the local expert in organizing, managing, and promoting this type of events. Several other environmental organizations have contacted us to help them create such an event for the property they manage. Area schools, scout groups, and interested individuals have gotten inspired by our efforts to protect our natural habitats and have asked us to develop more educational programs and are interested in volunteering.

Attendance

This year's Bio Blitz hosted 3 Boy Scout Troops and 1 Girl Scout troop totaling 27 scouts including scout leaders. The scouts participated in counting spiders, aquatic invertebrates, birds and reptiles. 32 volunteers participated in the initial organization, advertising, getting sponsorships, education, hosting, cooking, tour guides, equipment set up and tear down. Approximately 50 local citizens were able to actively participate in the biological inventory field work.

Ryan Light donated his time and equipment of solar panels to generate electricity to power microscopes and laptop computers. Attendees were given the opportunity to not only view the equipment but to learn about the possibility of adding solar power to their homes.

INTRODUCTION:

The 24-hour bio blitz conducted on June 27-28, 2014 at Black Hawk State Historic Site and Black Hawk Forest Nature Preserve in Rock Island County.

MATERIALS:

Singing Bird Lodge served as our base camp. This lodge is complete with kitchen, toilets, shower, electricity, and sleeping area for scientists and volunteers.

Microscopes, nets, computers, extension cords/power strips, tally board, clip boards, educational activities/worksheets, portable lighting, tables, chairs, small mammal traps, binoculars, insect traps, and other field equipment.

METHODS:

Team leaders were assigned to each area being collected. These individuals are experts in their field and they determined who would be on their team and what strategy to employ during the 24 hour collection period. The team leaders were also in charge of adding their count to the tally board.

50+ volunteers were recruited from River Bend Wildland Trust, area conservation groups, Boy and Girl Scout troops, and the general public assisted with logistics, food preparation, information table, shuttle transportation, public relations, educational activities, and scientist support.

The base camp tent housed the microscopes, computers, lights, tally board and individual collection records. Volunteers and attendees alike were introduced to and encouraged to interact with the scientists as they captured, identified and counted the various species.

In addition to working alongside the scientists, extra activities such as an early morning guided hike, solar panel technology and use presentation, and educational materials to take home were offered.

RESUILTS:

To date, a list of 642 species of plants and animals with more invertebrates preserved and sent to the Illinois Natural History Survey for identification (more results pending). Prior to this event DNR/INPC records included only 148 species documented utilizing the site – more than 4 fold increase in a 24 hour period.

The list includes:

- 48 new fungi and slim molds,
- 10 species of mammals (2 fold increase),
- 8 species of reptiles and amphibians (2 fold increase),
- 10 new fish,
- 34 new spiders,
- 20 new aquatic invertebrates,
- 51 birds (3 fold increase),
- 254 vascular plants (2 fold increase),
- 207 new terrestrial invertebrates (thus far).

Prior to this event DNR/INPC records included only 148 species documented utilizing the site – **more than 4 fold increase in a 24 hour period.**

While no federal or state listed species were documented, at least 6 wildlife "Species of Greatest Need of Conservation" (as identified by the Illinois Wildlife Action Plan) were identified. These were all birds thought to be breeding within the high quality forest community. A four-fold increase in the known diversity of the site is very helpful in increasing the knowledge of the plants and animals that are found within this site.

This list is an important step in managing the preserve and has been shared with park caretakers.

SUMMMARY:

The objective of increasing public awareness and appreciation of the vast array of biodiversity at the Black Hawk State Historic Site/Black Hawk Forest Nature Preserve was met. Specifically; the species inventory was conducted, date on site biodiversity used to help guide future land management was collected and disseminated, public outreach was provided.

As a result, this BioBlitz is considered by all to be a huge success. This event will build on the past BioBlitz held at Milan Bottoms has received such local recognition that RBWT has been contacted by the QC Expo Center to assist them in facilitating a BioBlitz on a wetland they own and are responsible for. RBWT has become a trusted partner and the team is considered to be experts in organizing and managing such important conservation events.

Expense report: Items covered under this grant plus cost share donations.

BLACK HAWK BLITZ EQUIPMENT CHECKLIST

Item	value	purpose
ATVs (2)	$600	shuttle supplies, select people and equipment
large tent	**$500**	to house information table, equipment and ID area
folding tables	$100	min. 4-6 large tables
folding chairs	$100	min. 20
laterns/lights for tent	$15	min. 4 for tent
portable generator	$100	for power source for lights, computer, etc.
blacklight	$20	for insect nightlighting
flashlights	$10	several per night team, parking, shuttle
head lamps	$10	several per night team, parking, shuttle
maps of site	$100	1 laminated high quality map of site with sectors defined for each team plus an extra set for public liasons and several extra for registration and information tables
insurance (for 1 day event)	**$400**	liability coverage for RBWT
liability/photo waiver		for public to sign
incident/event plan		for use in coordinating entire event
fact sheet for briefing volunteers		for use to brief volunteers for each shift
fact sheet for briefing public		for use to brief public groups as they arrive; before they depart for demonstration or other activities
T-shirts	**$700**	Bio Blitz T-shirts for active? volunteers and invited biologists on teams; available for sale to public and others
RBWT items for sale		RBWT fund raising items (seed, plants, etc.)
displays		displays for RBWT and/or Milan Bottoms
fact sheets on taxonomic groups	**$200**	to distribute to public to provide educational material on each taxonomic group

GPS units	$100	1 for each active team (must have readings for all E/T species)
flagging tape	$30	6 rolls available
scissors	$1	12 of different sizes for misc. uses
multitools	$2	6 on hand for misc. uses
pliers	$2	several on hand
two-way radios	$30	min. 12 in good working condition with replacement batteries for logistics (parking, shuttle, registration, information, IC, public relations, etc.)
batteries	**$35**	AA, AAA and other sizes? for radios, GPS units, cameras, flashlights, headlamps, etc.
tool box	$15	1-2 fully stocked at tent
first aid kits	**$25**	1 for each boat, 1 for tent, 2-3 spares to loan to distant teams
insect repellent	$50	6-10 spray cans
cooler with drinks	**$75**	cooler full of ice and drinks for volunteers and teams (refill)
snacks	**$125**	for volunteers and teams
breakfast	**$250**	for volunteers and teams
lunch	**$500**	for volunteers and teams
dinner	**$400**	for volunteers and teams
drinking water	$5	1 large dispenser jug (refill as needed)
hand sanitizer	**$10**	4 containers for wash station
soap	**$10**	4 bars, 2 containers of liquid detergent
cleaning water	$5	1 large dispenser jug
plates, utensils	**$50**	for meals, drinks
paper bags, plastic baggies and foil	**$15**	to prepare portable sack meals for teams
garbage bags	**$20**	clean up trash
clipboards	$25	1-2 each team; 6+ spare in tent
notepads	$20	6+ in tent
paper	$12	stack available for teams, tent workers
write in the rain paper	$15	stack available for aquatic teams
write in the rain pens	$10	6 available for aquatic teams
permanent markers	$10	6+ in tent for labeling; loan to teams as needed
plastic baggies	$30	multiple sizes, available for teams
pens	$10	24 available in tent
pencils	$10	50 available in tent
rubber bands	$2	several 100 available in tent
staplers	$5	3+ available in tent
5 gal buckets	$10	10-20 for aquatic sampling, sorting

large plastic tubs	$15	10-12 for aquatic samping, sorting
small sorting tubs	$15	6-10 for sorting
sampling trays	$10	12-20 for invert sorting
sortings plates	$10	12-20 for invert sorting
small plastic bowls	**$10**	50 for insect sampling and sorting
plastic cups	**$25**	300-400 for drinking and sorting (rinse and reuse)
mist net for bats	$50	1 for netting bats at night
small mammals traps	$50	to set up for mammal capture
materials for print casts	$15	to make casts of mammal prints
motion sensor cameras	$50	to photograph mammals and other larger wildlife
herp traps	$75	to set up for turtles and terrestrial herps
drift fencing for herps	$50	to set up to direct herps to traps
pitfall traps	$25	to set up for capturing mammals, spiders?, etc.
field microscopes	$150	6 or more battery powered; possible camera attachments for bug photos
magnifying glasses	$15	12-20 for public education as well as ID
insect sweep nets	$20	10-12 for team, public collecting demonstration
aspirators	$10	6 for team, public collecting demonstration
aquatic dip nets	$25	6 for team?
plant presses	$10	2-3 for plant team specimens
small collection jars	$75	300 for insect sampling, sorting
ethyl alcohol	$25	for killing jars (quantity?)
dissecting tools	$20	student kits or several tool kits available
forceps	$10	12-24 available for sorting
field guides	$30	bring what we have and keep at tent for ID/education
snake hooks	$15	4 or more
binoculars	$50	12 to loan to public groups if available
spotting scope	$50	2 for public groups
boots	$50	6-12 different sizes; spares on hand for students, media and knowledgeable public going into wet areas
waders	$75	4 different sizes; spare on hand for students, media and knowledgeable public going out in boats
spotlights	$75	2-3 per station for nightlighting
white sheets	$10	2-3 for nightlighting insects
rope	$5	for tieing up sheets, etc.

clothes pins	$2	for hanging sheets, etc.
hand clippers	$10	on hand, may be useful to botany team
tarps	$35	2-3 for spreading out samples, or to use in case of rain
funnels	$2	2-3 for pouring liquids
tongs	$5	6+ for sorting
aquatic rakes	$10	2 for aquatic plant sampling
shaker sieves	$15	for aquatic inverts
screens	$15	for aquatic inverts
rubber gloves	$5	6-12 for sorting/ID
safety glasses	$5	6 for sorting/ID
paper towels	$5	4 on hand at tent
moist towelets	$5	2-3 packets at tent
large poster announcement tablet w/ stand	$10	for updating species count each hour
computer with long battery life	$50	for entering data on species found

TOTAL equip/materials/commod.	$6,063	$3,350
TOTAL		
biologists	$16,000	
volunteers	$8,640	
TOTAL		
lodging (2)	$160	$160
travel costs (1)	$250	$250
TOTAL	**$31,113**	**$3,760**

SCHEDULE OF EVENTS FOR BIO BLITZ

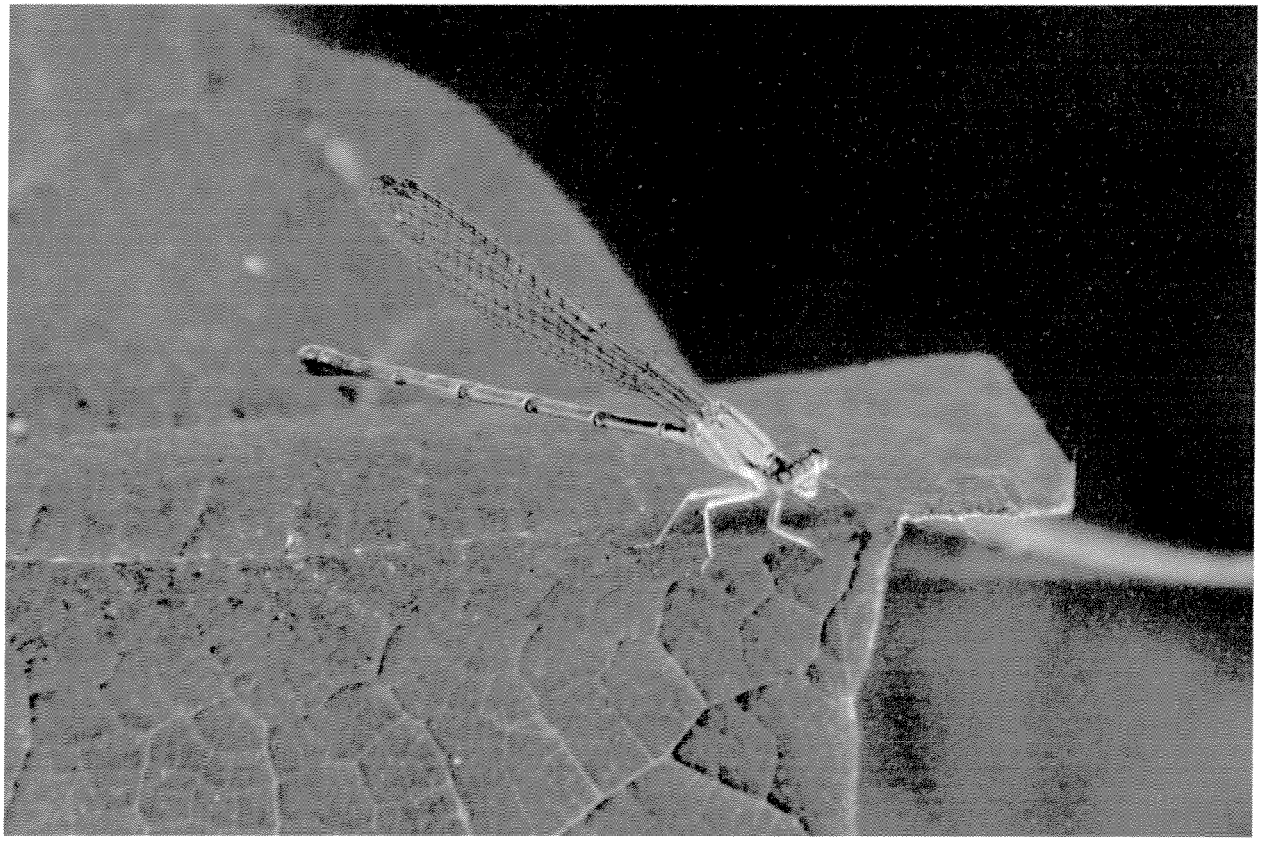
EDUCATIONAL DEMONSTRATIONS

Public Acitvities

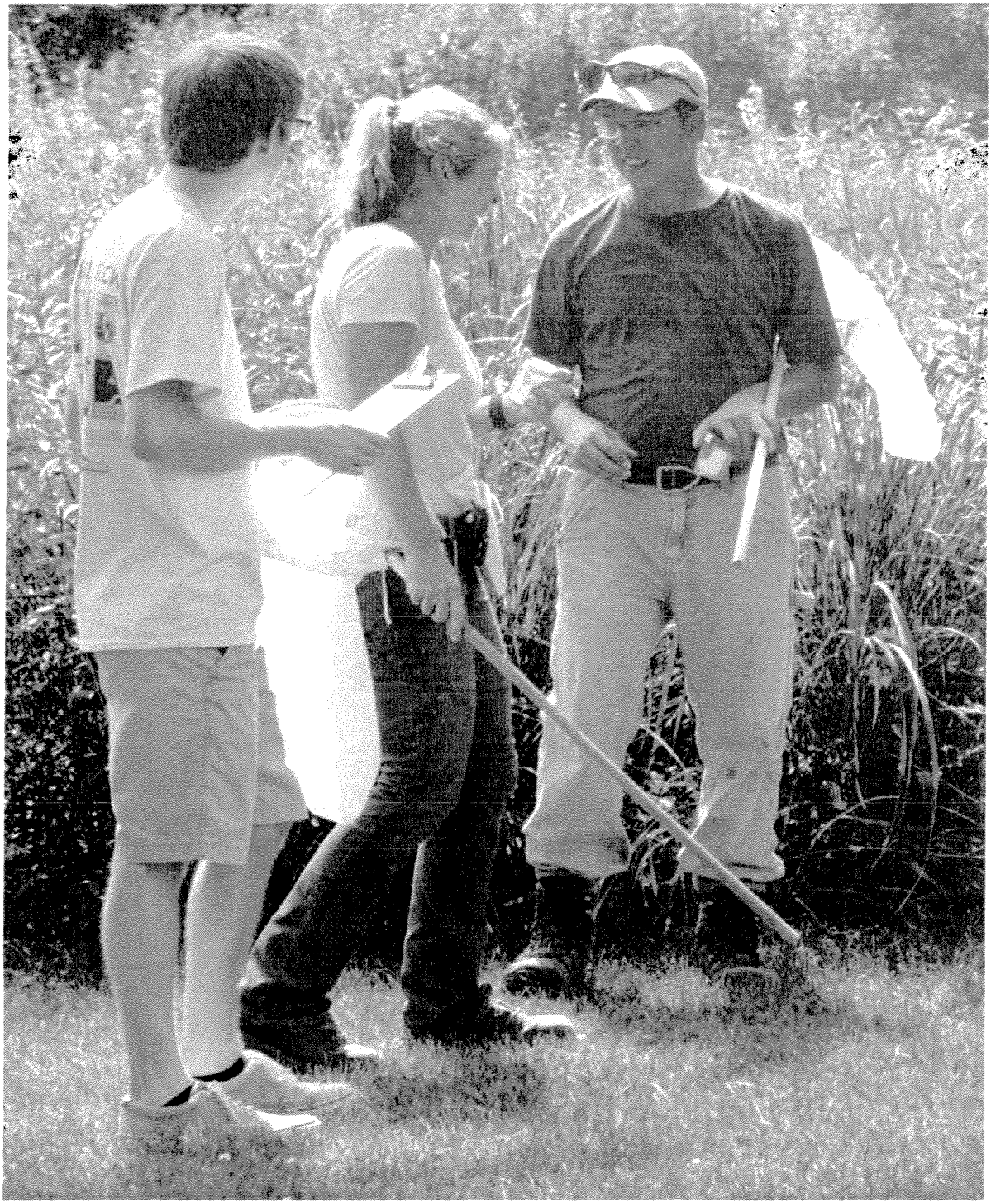
Event	Information	Time	Leaders
BioBlitz		3p Fri - 3p Sat	Tim Chambers
Public Access	Opportunity for public to engage with experts and learn about various survey methods and to experience biodiversity hands on.	7-9p Fri; 10a-3p Sat	Sam Moyer
Expert Biological Surveys	Pre-registered volunteers will have the opportunity to assist experts with surveys	Ongoing	Tim Chambers
Guided Night Hike	Opportunity for public to learn and experience first hand nocturnal biological diversity	8-10p Fri	Bob Bryant
Guided Bird Hike	Opportunity for public to learn about bird diversity of birds at Black Hawk Forest	6-7:30a; 8-9:30a Sat	Jody Millar and Pat Carlson (Quad Cities Audubon)
Guided General Ecology Hike	Opportunity for public to learn about and experience general ecology and interconnectedness at Black Hawk Forest	10 - 11am Sat	Tom Root (Black Hawk College)
Guided Flora Hike	Opportunity for public to learn about plant diversity	11a-noon Sat	Bob Bryant
Guided Ethnobotanical Hike	Opportunity for public to learn about cultural uses and salience of flora of Black Hawk Forest	noon-1pm Sat	Chuck Wester
Mist Netting Bats	Bat Surveys, catch and release	Fri sunset	Bob Clevenstine (U.S. Fish & Wildlife Service)
Mist Netting Birds	Bird Netting, catch and release	1 - 2pm	Drew Beckman (U.S. Fish & Wildlife Service)
River Watch Citizen Science Program	Aquatic Invertebrate collection and identification	10-11:30am Sat	Matthew Young
Plant/Seed/T-shirt/Bake Sale	Food provided at no cost to volunteers/experts; for sale to visitors	Ongoing	Gina Howell; Marilyn Andress

PHOTOS: All photos taken by Janelle Ruholl (volunteer) at Black Hawk State Historic Site and Black Hawk Forest Nature Preserve in Rock Island during June 27-28, 2014 Bio Blitz.

Ray Geroff (IL DNR) and Tom Engbrecht (IL Nature Preserves Commission) collecting insects in prairie.



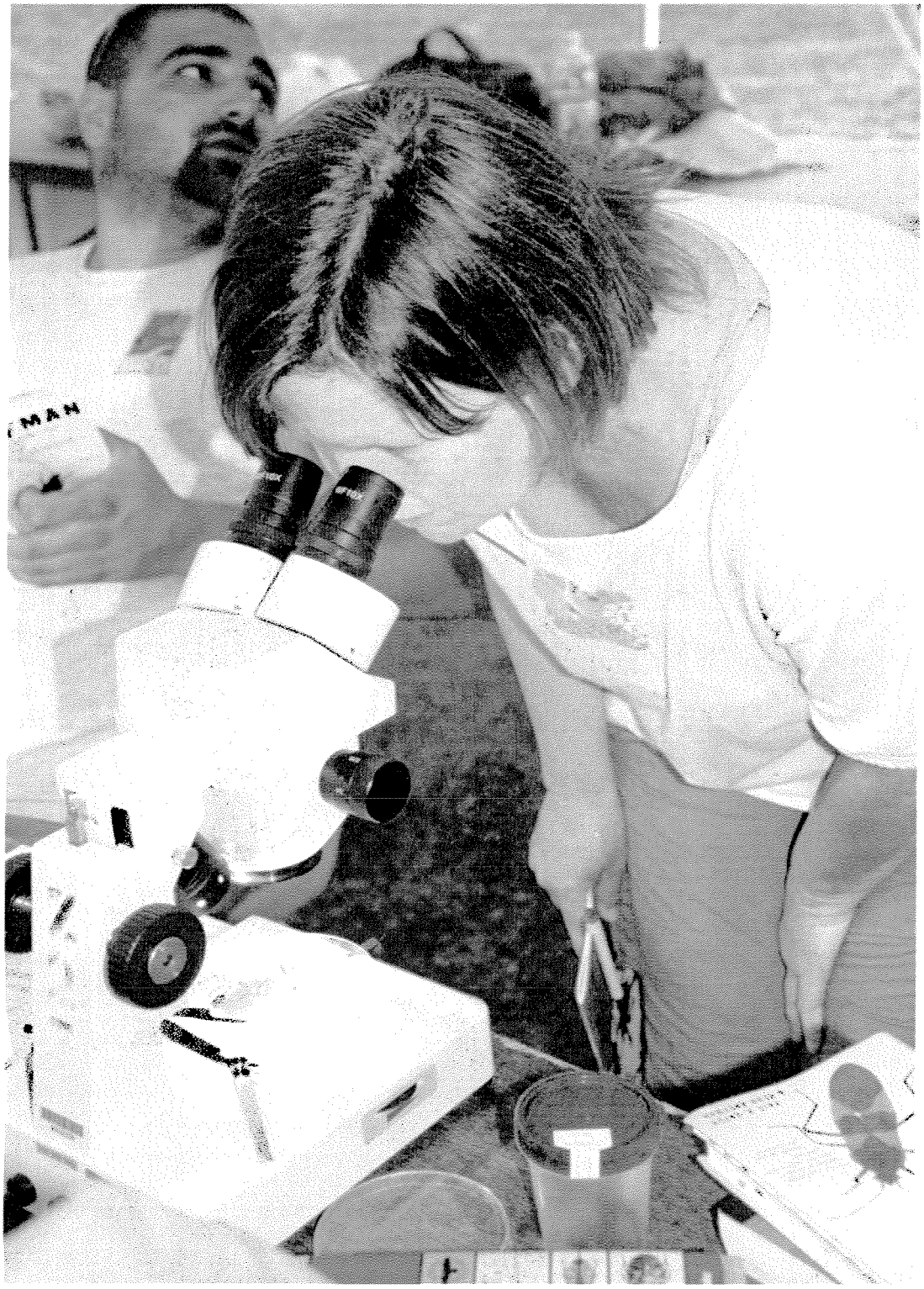
Damselfly on leaf.



Angella Moorehouse (IL Nature Preserves Commission) providing instruction in insect collection.

Black Hawk Bio Blitz Base Camp

Volunteer Ryan Light setting up portable wind turbine/solar panels.



Public citizen observing insects under microscope.

Jared Ruholl and Tom Engbrecht (IL Nature Preserves Commission) sampling insects in leaf litter with help from local boy scout.

PRESS RELEASE SUBMITTED TO PAPERS BY SARAH FORD OF RIVER BEND WILDLAND TRUST –

River Bend Wildland Trust (RBWT), in partnership with the Illinois Department of Natural Resources (Wildlife Preservation Fund), Illinois Nature Preserves Commission, and the U.S. Fish and Wildlife Service, invite you to join us for the 2nd Annual BioBlitz to be held at Black Hawk State Historic Site in Rock Island, Illinois from 3pm on June 27th to 3pm on June 28th.

A BioBlitz is an intensive survey of as many species as possible within a specified area during a 24-hour period. The hallmark of a BioBlitz is that members of the public witness and participate in a study of local biodiversity, typically in a nearby park or wildland area. The goal is to collect basic taxonomical data and to highlight the value of local habitats. Most important is to identify and promote biodiversity, which is the key to healthy ecological conservation.

Last year, RBWT held a BioBlitz at the Milan Bottoms, where scientists and citizens identified and documented 755 species in 24 hours. This year, we will be searching the waters, bluffs and forests of this historic site on the Rock River.

RBWT will be hosting scientists from the Midwest specializing in plants, mammals, insects, birds, amphibians, and reptiles. The biologists will converge on this 208-acre forested tract of dedicated nature preserve and to add to the current known species count of 53 (a decades old inventory).

"We are expecting over 25 experts that will inventory this unique nature preserve situated within an urban area," says Marilyn Andress, one of the BioBlitz coordinators. "This event is unique in that the research taking place will be used for scientific inventory of the forest. It's an exciting chance for citizens to work alongside the experts, and we also encourage families to attend, since there aren't many opportunities for youth to participate."

The public and media are invited to attend the BioBlitz to watch or assist the scientists in collection or documentation. RBWT will also be offering guided night and day hikes, including a bird mist netting and banding at 7am, a Hy-Vee lunch stand, native seeds and plants for sale, a species count lottery, and a limited edition t-shirt to all volunteers.

Volunteers are needed to run public activities, help experts in identifying samples, and all sorts of grunt labor! We're using VolunteerSpot (the leading online signup and reminder tool) to organize our upcoming activity.

If you could like to sign up for the BioBlitz – here's how it works in 3 easy steps:

1. Click this link to go to our invitation page on VolunteerSpot: http://vols.pt/aCPGS1
2. Enter your email address: (You will NOT need to register an account on VolunteerSpot)
3. Sign up! Choose our spots – VolunteerSpot will send you an automated confirmation and reminders. Easy!

Note: VolunteerSpot does not share your email address with anyone. If you prefer not to use your email address, please email our organizer, Tracy Jo Mullilken, Program Coordinator, at tmully@illinois.edu

You can also offer financial support through the Species Count pledge drive. A form is available on our website, or at the event. If 600 species are found, a 5 cent per species pledge will be $30, 10 cents will be $60, and $1.00 will be $600.

During the BioBlitz, RBWT will also be promoting the Species Count Lottery, where you can "buy a guess" on the ultimate count of species found, which is currently at 53 (we expect it to be in the hundreds). The lottery will be a 50/50 pot, with duplicate numbers splitting the amount. You can also mail donations, payable to RBWT, to P.O. Box 77, Milan IL 61264. All funds raised during this event will support conservation efforts and educational programming in the Quad Cities area.

Funding for this event was provided by:

Illinois Wildlife Preservation Fund Grant Program from the Illinois Department of Natural Resources

Partnering agencies (providing additional cost share support/services) include:

Illinois Natural History Survey
Western Illinois University
Augustana College
Blackhawk College
Illinois River Watch Program

For more information about this event, or about your tax-deductible gift, or any of our programs, please visit www.rbwt.org. We hope you make plans to join us at this hands-on, educational, inspiring, and now annual event!

If you do not feel comfortable signing up online to volunteer, please notify Tim Chambers of your availability at timothyjchambers@gmail.com or call him at 718-909-5039.

Submitted March 1, 2014 to various media outlets including:
Quad City Times, The Dispatch/Rock Island Argus

Publicity for Black Hawk Bio Blitz 2014

http://qctimes.com/gallery/news/black-hawk-historic-site-bio-blitz/collection_05813035-7fe4-5f4c-a74e-f214b0097458.html#0 June 27, 2014

http://qctimes.com/news/local/bio-blitz-will-count-species-at-black-hawk-site/article_45e520c0-d4a7-5aae-b034-1c946bcad7a8.html June 23, 2014

http://1mississippi.org/event/ilia-bioblitz-at-the-blackhawk-state-historical-site/

http://www.wnct.com/story/25892764/bio-blitz-held-at-black-hawk-state-historic-site

http://www.augustana.edu/x59938.xml

Plans underway for additional publicity. Awaiting final results from Illinois Natural History Survey (insect identification).