

2009 BioBlitz Report

## **A thank you to donors, sponsors, and partners**

The Connecticut State BioBlitz is an event of Herculean proportions that requires the participation and collaboration of participants, partners, and sponsors. Bruce Morton and other Goodwin College faculty and staff and the Friends of Keney Park, Upper Albany Collaborative, and Keney Park Trailblazers were responsible for much of the preparation and logistical aspects of the 2009 Connecticut State BioBlitz. The Dorr Foundation provided a major grant that helped us to launch a highly successful BioBlitz and fund the many facets of the BioBlitz Camp. The Center for Conservation and Biodiversity, Connecticut State Museum of Natural History, the Department of Ecology and Evolutionary Biology, and the College of Liberal Arts and Sciences at the University of Connecticut provided the scientific backbone of the event--nearly half of the scientists and the two principal organizers (Leanne Harty and David Wagner) are employees of the University. As in all past BioBlitzes, the Connecticut Department of Environmental Protection played a pivotal role in the sampling, BioBlitz Camp instruction, and public programming activities on Saturday. Other major contributors and sponsors included The City of Hartford, the Town of East Hartford, the B.A.S.S. Federation Nation, VCB Association, and Leadership Greater Hartford. To all we extend a heartfelt thank you.

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# I. Introduction

## *What is a BioBlitz?*

A BioBlitz is an intensive 24-hour biological survey of a designated area. Scientists and the region's top naturalists band together to scour the chosen area for all of the living organisms they can find over the cycle of one day. Species lists, specimens, and/or images are brought to a central location where they are sorted, identified, and tallied. The public is invited to observe the many facets of the BioBlitz and are treated to a day of talks, guided walks, and tours through the scientists' working areas, kid's activities, and other related programming. Key results are shared with the public and media at the closing ceremony, which features brief, yet information-laden summaries from more than 25 participating scientists.

The core events of this year's event--the 10<sup>th</sup> anniversary of the CT BioBlitz--were held at two locations: in Keney Park, Hartford and at Goodwin College in East Hartford.

Keney Park, a 693-acre park located in northeastern Hartford, served as the location for Connecticut's inaugural 1999 BioBlitz. The Park includes a golf course, miles of winding trails for hiking, sites for camping, the Matianuck State Natural Area, acres of woodlands, ponds, two sandplains, and much more. Within the boundaries of this expansive urban park, the BioBlitz participants were able to visit and sample a remarkably rich diversity of microbial, plant, and animal life. Samples were also taken in East Hartford's Rentschler Field, where several rare birds were found.

Goodwin College's new River Campus served as "BioBlitz Central" and housed the scientists and their collections over the course of the 24-hour event. In addition, the River Campus hosted the event's public programming as well as the closing ceremony. Goodwin College was founded in 1999 in East Hartford (burgeoning from what previously was known as the Data Institute Business School). Through a major expansion project, the state-of-the-art River Campus was opened for classes in January 2009.

Over the course of 24 hours, 1,715 species were found. Interesting and noteworthy finds include a breeding pair of bald eagles, a peregrine falcon, and a whopping 19-pound snapping turtle from Keney Cove that was used to host a National Geographic Crittercam. An eighteen-pound northern pike attracted considerable attention among those censusing the Connecticut River fish. A marvelous array of fungi—close to three times the number found at Keney in 1999—was collected by the Connecticut Valley Mycological Society. The BioBlitz yielded one new state record—a rare owlet moth (*Ufeus plicatus*).

## *Junior Scientists*

The Junior Scientist's Camp has become a principal focus of the Connecticut State BioBlitz. Middle and high school students from across the state are invited to participate alongside scientists to survey the plant and animal wildlife of the Greater Hartford area.

Each child that was interested in attending was required to submit a 500-word essay explaining why they should be selected to participate as a Jr. Scientist in the 2009 Connecticut BioBlitz. Of the more than 50 students that applied, 27 were selected to attend this year's camp.

Over the course of the 24-hour event, students were able to work with more than 20 scientists and DEP biologists. Camp highlights included learning about bats with Jenny Dickson (CT Department of Environmental Protection); catching aquatic organisms using nets with Neil Hagstrom (CT Department of Environmental Protection); setting turtle traps with Susan Herrick (Univ. of Connecticut); attending nighttime excursions to observe scientists collecting fish species using electroshock technology (CT Department of Environmental Protection wildlife biologists); or nocturnal insects using mercury vapor lights and large white sheets with Dr. David Wagner (Univ. of Connecticut); releasing a large female snapping turtle with an attached National Geographic Crittercam<sup>1</sup> with Tobias Landberg (University of Connecticut doctoral candidate); attending walks focusing on botany with Juan Sanchez, vertebrates with Brian Hiller (Univ. of Connecticut), invertebrates with Moria Robinson (Middlebury College), Shawn Binns (University of Connecticut), and Sabina Perkins (Stanford University) and mammal tracking with Jamie Fisher (White Memorial Foundation); mist netting birds and banding them with Chris Fields (Audubon Society) and Shannon Kearney (CT Department of Environmental Protection); touring "BioBlitz Central" where scientists, grad students, and dozens of the region's top naturalists were assembled and busy working through their specimens. In addition to all of the above, the Junior Scientists had the opportunity to ride on bass boats out onto the Connecticut River; go "frogging" with Susan Herrick on Friday evening; listen to the hunting calls of echolocating bats; observe a pair of nesting bald eagles; attend an assortment of public walks and talks led by scientists; and much, much more.

BioBlitz organizers received a tremendous amount of positive feedback from the youth participants and their parents. The Jr. Scientists camp coordinator, Edward Smith of Two Rivers Magnet School (East Hartford), is certain a few biologists were "made" that day. For some of the Junior Scientists the event was an epiphany. Smith felt it was the best BioBlitz Camp of the three that he has organized and led. Evaluation forms were sent to each student over the summer—results of which can be obtained from Ed Smith.

In August, each student was mailed a CD with 50 "best of" images from the 2009 Connecticut State BioBlitz that had been assembled by Chris Jelly.

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<sup>1</sup> The camera with on-board computer was loaned by the National Geographic Society.



*Image: Undergraduate students leading a nature walk in Keney Cove.*

## **II. Public Programming and Outreach**

### **Friday Program at Keney Park**

The BioBlitz kickoff at 3:00 PM; opening ceremonies, and public barbecue were held in Keney Park. The official welcoming ceremony with public addresses by local leaders, officials, and a guest speaker was held Friday from 5 PM to 6:30 PM at the Keney Pond House. Much of the planning and logistical support came from Friends of Keney Park with help from the Upper Albany Collaborative and the City of Hartford.

The event's opening ceremony, led by Councilman Luis Cotto, enjoyed participation from various dignitaries. A representative from Mayor Eddie Perez's office provided the initial welcoming remarks. Robert Painter discussed the history and future of the BioBlitz, and a representative from Congressman Larson's office read a message from Congressmen Larson, in which the efforts of the board members, Bayyinah Lyons, Henry Hester, and the friends of Keney Park were acknowledged. University of Connecticut professor David Wagner spoke about the role that events like the BioBlitz play in outdoor (science) education. His remarks were followed by Dr. Jeremy Teitelbaum, the Dean of Liberal Arts and Sciences at the University of Connecticut, who spoke about the Natural History Museum and the scientific and outreach values of the Connecticut State BioBlitz.

The program culminated in an engaging and humorous keynote speech by Richard Conniff—a world-famous author who has written a half-dozen books. Conniff regaled the audience with personal accounts from his colorful experiences abroad. Afterward

Conniff signed copies of his new book, “*Swimming with Piranhas at Feeding Time: My Life Doing Dumb Stuff with Animals.*”

After the welcome speeches and presentation by Conniff the scientists, both junior and adult, as well as the attending public were treated to a barbecue sponsored by the Friends of Keney Park

**Saturday Program at Goodwin College (East Hartford)**

Goodwin College’s River campus was home to a rich program of talks and presentations that occurred on the patio and in the auditorium from 10 AM to 4 PM on Saturday (see Table 1). In addition there were numerous exhibitors lining the main hallway that interacted with the public (see Table 2).

**Table 1. Scheduled Talks and Presentations.**

<u>Auditorium</u>	<u>Patio Talks, North Courtyard</u>
11:00- CT Turtles Dennis Quinn, CTHerpConsultant LLC	11:15- Crayfish, Shrimp, and Kin Alberto Mimo, North East Naturalist
11:30- CT River Turtlecams in Action Tobias Landberg, UConn	11:45- Caterpillars Michael Singer lab, Wesleyan University
12:00- Homing and the Herring Eric Schultz, UConn	12:15- Spiders, Centipedes, and Scorpions John Wallace
12:30- Small Mammals of Connecticut Jamie Fischer, White Memorial Foundation	12:45- Connecticut’s Fungi Connecticut Valley Mycological Society
1:00- Invasive Plants Logan Senack, Connecticut DEP	1:15- Aquatic Insects Alex Meleg, UConn
1:30- Chimney Swifts! Margaret Rubega, UConn	1:45- Turtlecams in Action Tobias Landberg, UConn
2:00- Connecticut Snakes Chuck Annicelli, Herpetological Surveys LLC	2:45- Dangerous Bugs Parker Gambino, Res. Assoc. American Museum of Natural History
2:30- Bats Jenny Dickson, Connecticut DEP	

**Table 2. 2009 Connecticut State BioBlitz Exhibitors**

American Museum of Natural History	Herpetological Surveys, L.L.C.
Connecticut Audubon Association—Glastonbury	Park River Watershed Revitalization
Connecticut Department of Environmental Protection	UConn Museum of Natural History
Connecticut Valley Mycological Society	University of Connecticut, Storrs
CTHerpConsultant, L.L.C.	VCB Association
Friends of Keney Park	White Memorial Foundation
Goodwin College White Memorial Foundation	

In addition to the above, the program included two hands-on “Nature Art” workshops for children.

The 2009 BioBlitz’s most popular programming event was the DEP Electroshock fishing boat moored at the Goodwin College dock. Dozens, if not hundreds, visited the boat on Saturday, and were treated to an opportunity to see close-up live fish collected from the Connecticut River the previous evening.

A few lucky members of the public were treated to boat rides on the Connecticut by members of the B.A.S.S. Federation Nation of Connecticut. The B.A.S.S. Federation had three volunteers who brought their boats and treated scientists, junior scientists, event organizers, and some lay public to short rides on the Connecticut River. The most popular destination was the Bald Eagle nest upriver from Goodwin College on the west bank of the Connecticut River.

In addition to the other events, four guided nature walks were available to members of the public. All were held in the vicinity of Keney Cove:

10:00 Butterfly Walk (Juan Sanchez)

12:00 Bug Safari (two programs) (Moria Robinson, Sabina Perkins, and Shawn Binns)

1:00 Radio Telemetry (Dennis Quinn)

2:00 Invasive Plants (Logan Senack)

The final event of the 2009 Connecticut State BioBlitz was the closing ceremony held in the courtyard at Goodwin College where the public and scientists join to tally their findings. The core of the program is a series of brief “highlight” presentations provided by more than 25 participating scientists and top naturalists. In under a minute or two each speaker is charged with relating to the public, media, and other scientists their team’s most significant discoveries and providing a species total for their team’s collective efforts. The talks are information-packed, fast-paced, and often laced with humor.

All sponsors and partners were acknowledged during the closing ceremony. Special mention was made of the generous contribution made by the Dorr Foundation.

The final count during the BioBlitz was 1,711 species. Four late additions, made over the days following the event, brought the final total for the 2009 Connecticut State BioBlitz to 1,715 species—a number that was regarded as remarkable for such an urban setting.





*Image: The final species count during the BioBlitz.*

### **III. Our Findings**

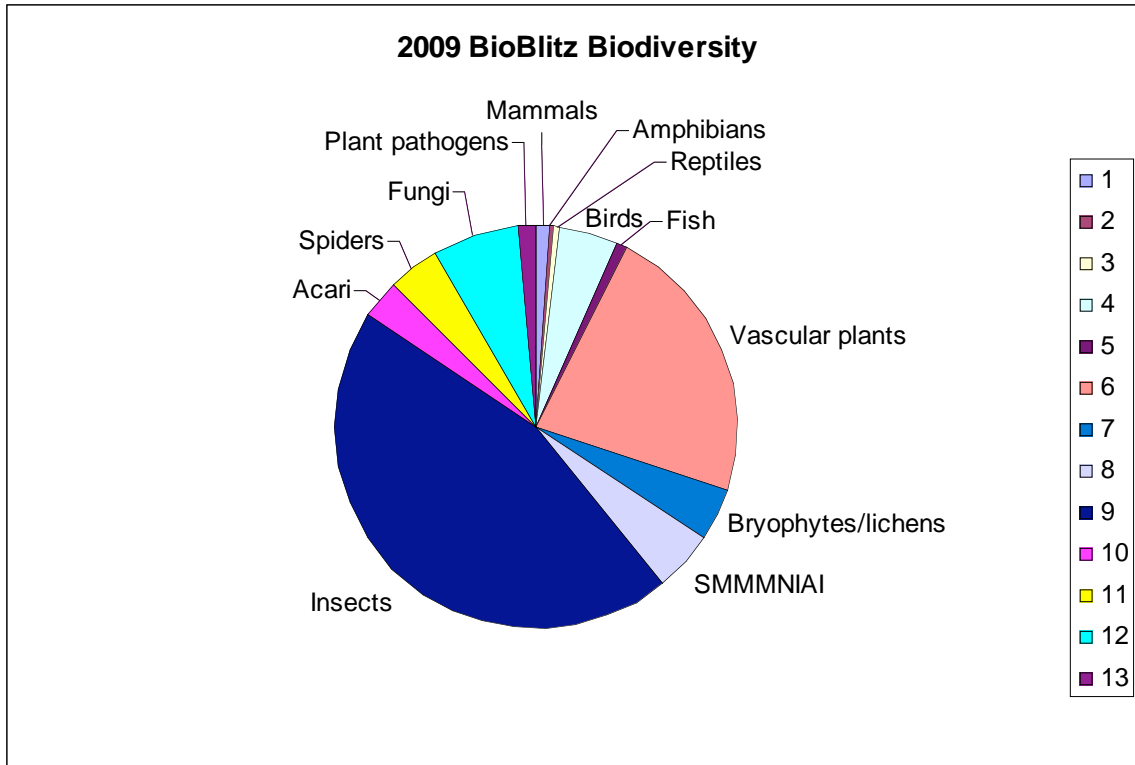
The 2009 BioBlitz was a wildly successful event, with incredible results. Over 300 more species were found in this BioBlitz than were found in the inaugural Connecticut State BioBlitz held 10 years earlier in Keney Park. As in 1999, scientists worked diligently and some all through the night, to find and identify every species they could in a 24-hour span. Below we break down the 1715 species total by major taxon with significant findings listed in the right-hand column.

2009 BioBlitz Results

**2009 BioBlitz Species Tally**

<b>Species</b>	<b>Count</b>	<b>Of Special Interest</b>
Mammals	17	red fox; evidence of healthy, breeding bats in Keney
Reptiles/Amphibians	16	spotted turtle; 20-pound snapper from Keney Cove which was used to host critter cam; box turtle, wood turtle, and plus young turtles of both the latter species indicative of successful nesting
Birds	81	bald eagle, peregrine falcon, savannah sparrow, bobolink, grasshopper sparrow, upland sandpiper
Fish	15	18-pound northern pike
Vascular Plants	386	rediscovery of state endangered sedge
Bryophytes/Lichens	73	
SMMMNAI*	86	
Coleoptera	247	
Diptera	100	
Hymenoptera	97	
Butterflies and moths	233	state-record moth ( <i>Ufeus plicatus</i> )
Dragonflies/Damselflies	20	one county record (Walsh's emerald)
Primitive insect orders	78	
Acari (ticks/mites)	52	
Spiders and kin	70	
Fungi	118	marvelous array, close to three times the number found at Keney in 1999
Plant pathogens	26	
Total number of species	1715	

\* Single and Multicelled Non-insect Aquatic Invertebrates



*Image: Pie chart of the 2009 BioBlitz biodiversity.*

Vascular plants, as in all previous BioBlitzes, topped the list: 386 species were recorded. As would be expected, insects accounted for most of the animal diversity with 775 species reported over the course of the event. Beetles (Coleoptera), arguably the world’s most successful group of macroscopic organisms (if evolutionary success is counted by species number), were the most diverse group of insects: 247 species of beetles were collected and counted. Beetles were followed by moths and butterflies (Lepidoptera) which added another 233 species to the count total. The 118 species of fungi is also noteworthy, and a BioBlitz highwater mark—likely this high number was the result, at least in part, of the Connecticut’s wet spring in 2009.

While it possible to collect, sort, and count insect species, few of these can be identified to species without considerable effort and resources. Species-level identifications are most often secured for vertebrates (which have lower species diversity relative to invertebrates, so many experts can quickly supply reliable identifications). Below, we provide species lists for four vertebrate taxa: mammals, reptiles, amphibians, and birds.

These lists are followed by brief narratives that identify key findings for some of the main “branches” on the tree of life.

### 2009 BioBlitz Mammal Species List

Common Name	Species
American beaver	<i>Castor canadensis</i>
White-footed mouse	<i>Peromyscus leucopus</i>
Coyote	<i>Canis latrans</i>
Domestic dog	<i>Canis familiaris</i>
Red fox	<i>Vulpes vulpes</i>
Common raccoon	<i>Procyon lotor</i>
Bobcat	<i>Lynx rufus</i>
White-tailed deer	<i>Odocoileus virginianus</i>
Human	<i>Homo sapien</i>
Virginia opossum	<i>Didelphis virginiana</i>
Big brown bat	<i>Eptesicus fuscus</i>
Eastern chipmunk	<i>Tamias striatus</i>
Woodchuck	<i>Marmota monax</i>
Eastern gray squirrel	<i>Sciurus carolinensis</i>
Meadow vole	<i>Microtus pennsylvanicus</i>
Domestic cat	<i>Felis catus</i>
Horse	<i>Equus ferus caballus</i>

### 2009 BioBlitz Reptile Species List

Common Name	Species
Common snapping turtle	<i>Chelydra serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Spotted turtle	<i>Clemmys guttata</i>
Wood turtle	<i>Clemmys insculpta</i>
Eastern box turtle	<i>Terrapene carolina</i>
Milk snake	<i>Lampropeltis triangulum</i>
Northern water snake	<i>Nerodia sipedon</i>
Dekayi's snake	<i>Storeria dekayi</i>
Common garter snake	<i>Thamnophis sirtalis</i>

### 2009 BioBlitz Amphibian Species List

Common Name	Species
Spotted salamander	<i>Ambystoma maculatum</i>
Red-back salamander	<i>Plethodon cinereus</i>
Eastern newt	<i>Notophthalmus viridescens</i>
American toad	<i>Bufo americanus</i>
Gray treefrog	<i>Hyla versicolor</i>
American bullfrog	<i>Rana catesbeiana</i>
Green frog	<i>Rana clamitans</i>

## 2009 BioBlitz Bird Species List

Canada Goose	Hairy Woodpecker	European Starling
Wood Duck	Northern Flicker	Cedar Waxwing
Mallard	Eastern Wood-Pewee	Yellow Warbler
Wild Turkey	Willow Flycatcher	Pine Warbler
Double-crested Cormorant	Eastern Phoebe	Black-and-white Warbler
Great Blue Heron	Great Crested Flycatcher	American Redstart
Green Heron	Eastern Kingbird	Ovenbird
Turkey Vulture	Yellow-throated Vireo	Common Yellowthroat
Osprey	Warbling Vireo	Scarlet Tanager
Bald Eagle	Red-eyed Vireo	Eastern Towhee
Red-shouldered Hawk	Blue Jay	Chipping Sparrow
Red-tailed Hawk	American Crow	Savannah Sparrow
American Kestrel	Tree Swallow	Grasshopper Sparrow
Peregrine Falcon	Northern Rough-winged Swallow	Song Sparrow
Killdeer	Barn Swallow	Northern Cardinal
Spotted Sandpiper	Black-capped Chickadee	Rose-breasted Grosbeak
Upland Sandpiper	Tufted Titmouse	Indigo Bunting
American Woodcock	White-breasted Nuthatch	Bobolink
Herring Gull	Brown Creeper	Red-winged Blackbird
Great Black-backed Gull	Carolina Wren	Eastern Meadowlark
Rock Pigeon	House Wren	Common Grackle
Mourning Dove	Blue-gray Gnatcatcher	Brown-headed Cowbird
Great Horned Owl	Eastern Bluebird	Baltimore Oriole
Chimney Swift	Veery	House Finch
Ruby-throated Hummingbird	Wood Thrush	American Goldfinch
Belted Kingfisher	American Robin	House Sparrow
Red-bellied Woodpecker	Gray Catbird	
Downy Woodpecker	Northern Mockingbird	

## 2009 BioBlitz Notables

### **Mammals**

There were several notable mammals found during the BioBlitz. Evidence (scat) of a red fox (*Vulpes vulpes*) family was found in Keney Park. Several pregnant female big brown bats (*Eptesicus fuscus*) were discovered around the Keney Pond House, indicating that the colony there is a healthy, breeding population. This is good news considering that many of the region's bats are suffering dramatic losses from White-nose Syndrome.

### **Birds**

Several state listed birds were found by the ornithologists, which included the upland sandpiper (*Bartramia longicauda*), American kestrel (*Falco sparverius*), peregrine falcon

(*Falco peregrinus*), savannah sparrow(*Passerculus sandwichensis*), grasshopper sparrow (*Ammodramus savannarum*), bobolink (*Dolichonyx oryzivorus*), and the eastern meadowlark (*Sturnella magna*). All of these state-listed species were found near Rentschler Field in East Hartford. The other state listed species they found was probably the biggest find of all, the famous bald eagle (*Haliaeetus leucocephalus*).

### **Amphibians and Reptiles**

The major reptile “event” that occurred during the BioBlitz was the set-up and deployment of the National Geographic critter-cam, a waterproof camera that is attached to a turtle. This computer-operated camera dislodges after several hours and floats to the surface, allowing for its retrieval and subsequent viewing. The footage gave us a peek into life from a turtle’s perspective. A deep debt of gratitude is owed to Tobias Landberg, a graduate student at UConn, who captured the enormous female snapping turtle (*Chelydra serpentina*), attached the camera, made presentations to the BioBlitz junior scientists, retrieved the camera, and edited the raw footage.



*Imagine: The common snapping turtle (Chelydra serpentina) used for the CritterCam.*

Three state-listed species reptiles were found in Keney by the herpetologists: spotted turtle (*Clemmys guttata*), eastern box turtle (*Terrapene carolina*), and wood turtle (*Glyptemys insculpta*). Young turtles were found of the latter two, which indicates that there is a breeding population present at Keney.



*Image: A baby turtle found in Keney park.*

## **Fish**

The team of ichthyologists found 18 species, including the American Eel (*Anguilla rostrata*) and the pumpkinseed sunfish (*Lepomis gibbosus*). The major catch for the ichthyologists was a gargantuan northern pike (*Esox lucius*) that weighed 18 lbs.

## **Vascular Plants**

Vascular plants accounted for 386 species at the BioBlitz. The state-endangered Davis' sedge (*Carex davisii*) was rediscovered during the event, which is a perennial herb that grows in floodplain forests, alluvial meadows, and calcareous woods, among other habitats. Two notable horticultural escapes were documented: umbrella magnolia (*Magnolia tripleta*) and fiveleaf aralia (*Acanthopanax sieboldianus*).

## **Insects**

The big winners in terms of quantity were the entomologists, who recorded 775 insect species. These included 78 "primitive/basal" insects (including crickets, grasshoppers, lacewings, and scorpionflies), 20 odonates (dragonflies/damselflies), 247 coleopterans (beetles), 100 dipterans (flies), 94 hymenopterans (bees/wasps/ants), and 233 lepidopterans (moths/butterflies). One rare moth was found (*Ufeus plicatus*), which represented a state record. Images of the larva collected by Alex Meleg, from the trunk of an enormous cottonwood growing along the shore of the Connecticut River, were the first ever made for this highly elusive animal, and are soon to be published in a book authored by David Wagner, University of Connecticut.





*Image: A green darner (Anax junius) found by the sand dunes in Keney park.*

## **Fungi**

In terms of morphological diversity, the mycologists had some of the most impressive finds of all. A stunning array of fungi, with all sorts of shapes, sizes, and colors were collected and put on display at BioBlitz central at Goodwin College (most of which were edible). The mycologist table was certainly the most vibrant and oft-visited by the public at the BioBlitz. Their final total was 118 species of macrofungi and slime molds--nearly three times the number that was recorded in 1999.



*Image: The mycologist table.*



## IV. Conservation and Management Matters

Here we restrict our discussion to Keney Park, the focal sampling site for the scientists in both the 1999 and 2009 BioBlitzes. By far the most significant area from a conservation standpoint are the biotic communities at the north end of the park that are presently included in Matianuck State Natural Area, north and west of the Keney Park Golf Course and south and east of the Mount Saint Benedict Cemetery.

The area includes two open sandy areas, surrounding little blue stem grasslands, and a small stand of pitch pine. These small communities are home to more than a dozen state-rare species. Especially significant are the open sand patches (centered at 41° 48.523'N 72° 40.845'W), which host a large population of the Big Sand Tiger Beetle (*Cicindela formosa*) (State Threatened) and the Ghost Dune Tiger Beetle (*Cicindela lepida*) (State Endangered). The population of *Cicindela formosa*, numbers in the hundreds, and is believed to be one of the largest in the State.

The Dune Ghost Tiger Beetle (*Cicindela lepida*) population at Matianuck was one of only two viable populations of this animal in the Northeast—likely a glacial relict that was once abundant on the dunes along the eastern shore Glacial Lake Hitchcock (and the attending communities that existed after the lake drained 17,000 ybp). Our mark-recapture study on-site of adults in 2000 suggested that the population was extremely imperiled. Our best estimate was that there were only 30 individuals (the 95% confidence interval on the estimate was between 20-50 individuals). Unfortunately, the beetle has not been seen in more than 7 years.

From 2000 to 2002, several members of Dr. David Wagner's lab at the University of Connecticut surveyed sandplain communities up and down the Connecticut River Valley from Turner Falls Massachusetts, south to Wallingford, Connecticut. All major inland sandplains known in the states of Connecticut and Massachusetts were visited. The small sandplain at Matianuck proved to be one of the region's most significant. In addition to the above 22 other insect species were only recorded from Matianuck State Park (see Table below). At least two of these represented state records and one, bombyliid or bee fly is believed to represent a new species to science.

The sandy woodlands that surround these open areas yield the several box turtles recovered during this year's BioBlitz. The juvenile box turtles are indicative that this imperiled animal is successfully nesting and breeding in Keney Park.

Obviously, every effort must be made to preserve these regionally significant animals and the communities where they are eking out their existence. Further encroachment and development, even for recreational purposes, should be very carefully considered such that critical habitats are not impacted. In the case of box turtles, both the nesting areas and home ranges must be considered.

## **Management Considerations**

It would be helpful to have a formal management plan prepared for these rare communities, and for efforts to be made to follow through with any management recommendations. Four immediate goals might be to:

- (1) triple the extent of the bare sand areas;
- (2) consider forest management scenarios that would favor pitch pine (recruitment)
- (3) embrace measures that would maintain or promote little blue stem grasslands
- (4) conduct a formal, comprehensive, spring-to-fall survey of the early successional habitats at the north end of Keney Park. This effort should make an effort to assess the impacts of non-natives and determine whether such represent a special threat of the communities of conservation interest, given that this is a urban park with chronic pressures from invasive plants.

## **A Closing Thought**

One project that might be considered would be for a school and a wildlife biologist from the Connecticut Department of Environmental Protection/Connecticut Science Center to partner in a radiotelemetry study of the box turtle population at Keney Park. Such a study would provide valuable data on daily movement, home range size, critical data on preferred habitat, and likely other important data. From the student's standpoint, it would be a wonderful opportunity to participate in some high-end wildlife data collection and the effort could play an important role in the protection of an imperiled species.

**Table 3. Regionally Rare Species Known only from Matianuck State Park**

<b>Order Coleoptera</b>	<b>Family</b>	<b>Comments</b>
<i>Apenes lucidulus</i> (Dejean)	Carabidae	
<b>Order Diptera</b>		
<i>Atomosia puella</i> (Wiedemann)	Asilidae	
<i>Lasiopogon terricola</i> (Johnson)	Asilidae	
<i>Nicocles politus</i> (Say)	Asilidae	state record
<i>Paravilla</i> n. sp. near <i>floridensis</i> Hall	Bombyliidae	state record and new species
<b>Order Hymenoptera</b>		
<i>Dasymutilla canella</i> (Blake)	Mutillidae	
<i>Dolichoderus plagiatus</i> (Mayr)	Formicidae	
<i>Acanthomyops murphyi</i> (Forel)	Formicidae	rare in New England
<i>Auplopus a. architectus</i> (Say)	Pompilidae	
<i>Colletes inequalis</i> Say	Colletidae	
<i>Andrena atlantica</i> Mitchell	Andrenidae	
<i>Andrena dunningi</i> Cockerell	Andrenidae	
<i>Andrena miserabilis</i> Cresson	Andrenidae	
<i>Andrena nuda</i> Robertson	Andrenidae	
<i>Andrena vicina</i> Smith	Andrenidae	
<i>Augochlora pura</i> (Say)	Halictidae	
<i>Lasioglossum coriaceus</i> (Smith)	Halictidae	
<i>Lasioglossum forbesii</i> (Robertson)	Halictidae	
<i>Sphecodes aroniae</i> Mitchell	Halictidae	
<i>Sphecodes davisii</i> Robertson	Halictidae	
<i>Nomada cressoni</i> Robertson	Apidae	
<i>Nomada subnigrocincta</i> Swenk	Apidae	

## Appendix A. 1999 BioBlitz Results

For comparative purposes, we provide the results of the inaugural 1999 CT State BioBlitz at Keney Park. Again, we give species lists for the vertebrates, a biodiversity chart, and brief summaries of the significant findings.

### 1999 BioBlitz Table

Mammals	20
Reptiles/amphibians	10
Birds	75
Fish	13
Plants	285
Algae	20
Beetles	243
Two-winged flies	99
Ants/bees/wasps	94
Butterflies/moths	307
Other insects	89
Non-insect invertebrates	45
Parasites	33
Mushrooms	36
Total number of species	1,369

### 1999 BioBlitz Mammal Species List

Common Name	Species
	<i>Odocoileus virginianus</i>
Big brown bat	<i>Eptesicus fuscus</i>
Little brown bat	<i>Myotis lucifigus</i>
Red bat	<i>Lasiurus borealis</i>
Beaver	<i>Castor canadensis</i>
Cat	<i>Felis</i>
Chipmunk	( <i>Tamias</i> )
Eastern cottontail	<i>Sylvilagus floridanus</i>
Coyote	<i>Canis latrans</i>
Deer	( <i>Cervidae</i> )
Dog	<i>Canis lupus familiaris</i>
Eastern mole	<i>Scalopus aquaticus</i>
Deer mouse	( <i>Peromyscus</i> )
White-footed mouse	<i>Peromyscus leucopus</i>
Opossum	( <i>Didelphimorphia</i> )
Raccoon	<i>Procyon lotor</i>
Short-tailed shrew	<i>Blarina brevicauda</i>
Striped skunk	<i>Mephitis mephitis</i>

Gray squirrel	<i>Sciurus carolinensis</i>
Red squirrel	<i>Sciurus vulgaris</i>

### 1999 BioBlitz Reptile Species List

Common Name	Species
Bull frog	<i>Rana catesbeiana</i>
Green frog	<i>Rana clamitans</i>
Wood frog	<i>Rana sylvatica</i>
Red-back salamander	<i>Plethodon cinereus</i>
Spotted salamander	<i>Ambystoma maculatum</i>
Two-lined salamander	<i>Eurycea bislineata</i>

### 1999 BioBlitz Amphibian Species List

Common Name	Species
Northern watersnake	<i>Nerodia sipedon</i>
Garter snake	<i>Thamnophis sirtalis</i>
Snapping turtle	<i>Chelydra serpentina</i>
Eastern Box turtle	<i>Terrapene carolina</i>

### 1999 BioBlitz Bird Species List

Common Name	Species
Tufted titmouse	<i>Parus bicolor</i>
Rufous-sided towhee	<i>Pipilo erythrophthalmus</i>
Wild turkey	<i>Meleagris gallopavo</i>
Veery	<i>Catharus fuscescens</i>
Red-eyed vireo	<i>Vireo olivaceus</i>
Solitary vireo	<i>Vireo solitarius</i>
Warbling vireo	<i>Vireo gilvus</i>
Turkey vulture	<i>Cathartus aura</i>
Blue-winged warbler	<i>Vermivora pinus</i>
Pine warbler	<i>Dendroica pinus</i>
Yellow warbler	<i>Dendroica petechia</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>
Downy woodpecker	<i>Picoides pubescens</i>
Hairy woodpecker	<i>Picoides billosus</i>
Pileated woodpecker	<i>Dryocopus pileatus</i>
Red-bellied woodpecker	<i>Colaptes carolinus</i>
Carolina wren	<i>Thryothorus ludovicianus</i>
House Wren	<i>Troglodytes aedon</i>
Common yellowthroat	<i>Geothlypis trichas</i>

### 1999 BioBlitz Fish Species List

Common Name	Species
Banded killifish	<i>Fundulus diaphanus</i>
Largemouth bass	<i>Micropterus salmoides</i>
Smallmouth bass	<i>Micropterus dolomieu</i>
Brown bullhead	<i>Ameiurus nebulosus</i>
Carp	<i>Cyprinus carpio</i>
Black nose dace	<i>Rhinichthys atratulus</i>
Tessellated darter	<i>Etheostoma olmstedii</i>
American eel	<i>Anguilla rostrata</i>
Yellow perch	<i>Perca flavescens</i>
White sucker	<i>Catostomus commersoni</i>
Bluegill sunfish	<i>Lepomis macrochirus</i>
Pumkinseed sunfish	<i>Lepomis gibbosus</i>
Red Breast sunfish	<i>Lepomis auratus</i>

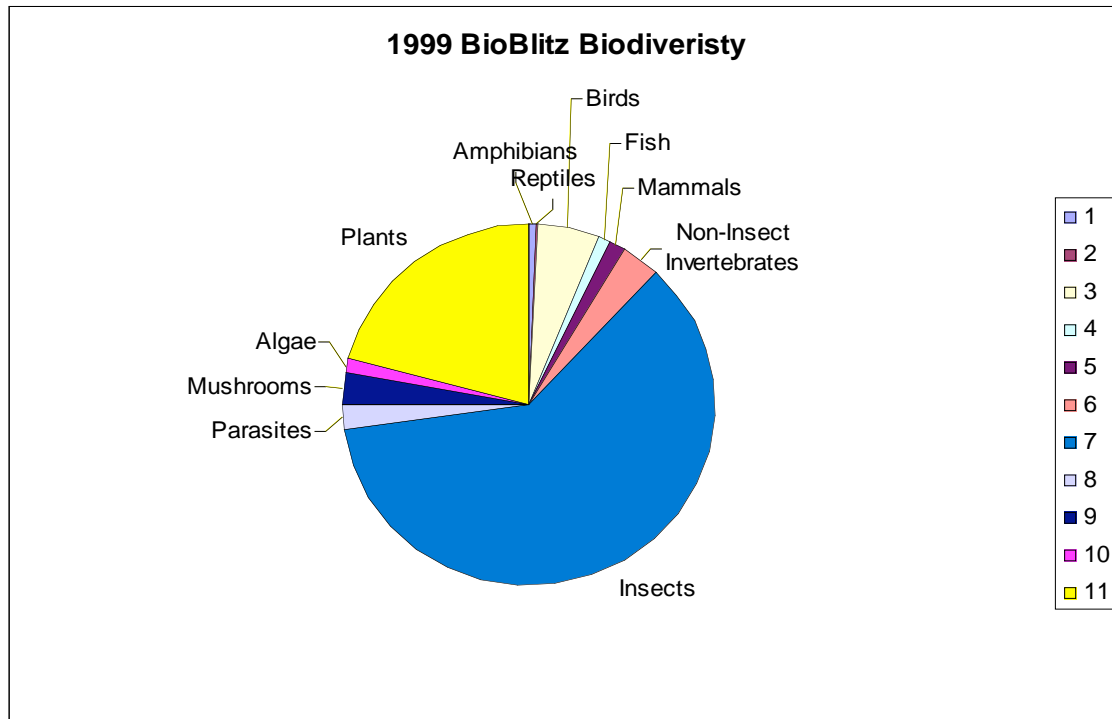


Image: Pie chart of the 1999 BioBlitz biodiversity.

In total, 1369 species were found in the 1<sup>st</sup> CT BioBlitz. Seventy-four scientists came together to scour Keney Park for organisms, representing 14 different organizations. There were many noteworthy organisms found during the inaugural event.

## 1999 BioBlitz Notables

### **Mammals**

Notable mammals include the endangered Red Bat (*Lasiurus borealis*) and the beaver (*Castor canadensis*).

### **Birds**

A (state-endangered) bald eagle (*Haliaeetus leucocephalus*) was seen during the event.

### **Insects**

There were two state-listed insects recorded: the Big Sand Tiger Beetle (*Cicindella formosa*) and the Brotherly Clubtail Dragonfly (*Gomphus fraternus*)

### **Plants**

Two populations of the state-endangered Pink-Lady's slipper (*Cypripedium acaule*) were found. Other notables included mountain holly (*Ilex sp.*) and the umbrella magnolia (*Magnolia tripetala*), the latter a horticultural escape.

## **Appendix B. Additional Findings**

In an effort to obtain additional representation of the insect species present in areas known to have taxa of conservation interest, two localities were resampled over the summer. Light traps were placed in the lower sandplain area of Keney Park in Hartford two times, as well as on two dates at Rentschler Field.

Because these are mid-summer samples, many species are added to the known Keney Park fauna for the first time. One moth taken, *Platyperigea clavipalpis* (Family Noctuidae), is a rare moth in the state and is believed to be a sandplain or dune specialist. Presently it is known from only two sandy areas, and should be reviewed/considered for state-listing.

Below, we give the coordinates and the findings for the Keney Park and Rentschler Field findings.

### **Keney Park light trap samples**

Keney Park, Hartford, CT  
Lower Sand Dunes (2 light traps)  
Western Site:  
41°48' 23.28" N, -72° 40' 45.68" W  
Elevation 104 ft.

Eastern most site:  
 41° 48' 25.7" N, -72° 40' 43.49"W  
 Elevation 102ft  
 Shawn Deford + Shawn Binns collectors  
 25 Jun 2009  
 Keney Park, Hartford, CT  
 Lower Sand Dunes  
 41.80692°N, -72.67931°W  
 Elevation 99 ft.  
 Shawn Binns + Sabina Perkins collectors  
 23 Jul 2009

### Keney Park Light Trap Findings

NAME	NUMBER FOUND	COMMENTS	DATE OF TRAP
FAMILY ARCTIIDAE			
<i>Virbia ferruginea</i>	2		25-Jun-09
<i>Virbia aurantiaca</i>	1		25-Jun-09
<i>Grammia nais</i>	1		25-Jun-09
<i>Pyrrarctia isabella</i>	6		25-Jun-09
<i>Cycnia tenera</i>	3		25-Jun-09
<i>Spilosoma congrua</i>	1		25-Jun-09
<i>Crambidia lithosioides</i>	1		29-Jul-09
<i>Holomelina ferruginea</i>	2		29-Jul-09
FAMILY DREPANIDAE			
<i>Habrosyne scripta</i>	1		25-Jun-09
FAMILY GEOMETRIDAE			
<i>Campaea perlata</i>	1		25-Jun-09
<i>Ectotropis crepuscularia</i>	6		25-Jun-09
<i>Euchlaena muzaria</i>	2		25-Jun-09
<i>Euchlaena serrata</i>	5		25-Jun-09
<i>Homochlodes fritillaria</i>	1		25-Jun-09
<i>Hypagyrtis unipunctata</i>	6		25-Jun-09
<i>Itame pustularia</i>	2		25-Jun-09
<i>Lytrosis unitaria</i>	1		25-Jun-09
<i>Macaria pinistrobata</i>	1		25-Jun-09
<i>Nematocampa resistaria</i>	1		25-Jun-09
<i>Orthonama obstipata</i>	1		25-Jun-09
<i>Pasiphila rectangularata</i>	6		25-Jun-09
<i>Nemoria bistrifaria</i>	2		29-Jul-09
<i>Pero hubneria</i>	1		29-Jul-09
<i>Aethalura intertextata</i>	1		29-Jul-09
<i>Eugonobapta nivosaria</i>	1		29-Jul-09
<i>Lomographa vestaliata</i>			29-Jul-09
<i>Melanolophia canadaria</i>			29-Jul-09



FAMILY LASIOCAMPIDAE			
<i>Malacosoma americana</i>	10		25-Jun-09
<i>Malacosoma amerciana</i>	1		29-Jul-09
FAMILY LIMACODIDAE			
<i>Euclea delphinii</i>	3		25-Jun-09
<i>Prolimacodes badia</i>	1		29-Jul-09
<i>Tortricida flexuosa</i>	1		29-Jul-09
FAMILY NOCTUIDAE			
<i>Bleptina caradrinalis</i>	15		25-Jun-09
<i>Caenurgina crassiuscula</i>	2		25-Jun-09
<i>Idia aemula</i>	1		25-Jun-09
<i>Lacinipolia lorea</i>	1		25-Jun-09
<i>Leucania phragmatidicola</i>	2		25-Jun-09
<i>Macrochilo orciferalis</i>	1		25-Jun-09
<i>Maliattha synochitis</i>	3		25-Jun-09
<i>Noctua pronuba</i>	1		25-Jun-09
<i>Oligia crytora</i>	1		25-Jun-09
<i>Orthodes crenulata</i>	1		25-Jun-09
<i>Palthis asopialis</i>	1		25-Jun-09
<i>Phalaenostola laurentioides</i>	4		25-Jun-09
<i>Platyperigea clavipalpis</i>	1	notable capture/rare	25-Jun-09
<i>Polia detracta</i>	12		25-Jun-09
<i>Polygrammate hebraeicum</i>	2		25-Jun-09
<i>Pseudeustrotia carneola</i>	1		25-Jun-09
<i>Raphia frater</i>	1		25-Jun-09
<i>Renia flavipunctalis</i>	2		25-Jun-09
<i>Spargaloma sexpunctata</i>	1		25-Jun-09
<i>Zanclognatha cruralis</i>	1		25-Jun-09
<i>Acronicta increta</i>	1		29-Jul-09
<i>Agrotis ipsilon</i>	2		29-Jul-09
<i>Amphipoea americana</i>	1		29-Jul-09
<i>Amphipyra tragopoginis</i>	1		29-Jul-09
<i>Caenurgina crassiuscula</i>	1		29-Jul-09
<i>Dyspyralis nigella</i>	1		29-Jul-09
<i>Leucania commoides</i>	3		29-Jul-09
<i>Nedra ramosula</i>	1		29-Jul-09
<i>Noctua pronuba</i>	2		29-Jul-09
<i>Palthis angulalis</i>	1		29-Jul-09
<i>Phalaenostola metonalis</i>	1		29-Jul-09
<i>Phalaenostola laurentoides</i>	2		29-Jul-09
<i>Platypena scabra</i>	1		29-Jul-09
<i>Pseudaletia unipunctata</i>	21		29-Jul-09
<i>Renia flavipunctalis</i>	6		29-Jul-09
<i>Renia sobralis</i>	2		29-Jul-09

<i>Zanclognatha ochreipennis</i>	1		29-Jul-09
NOTODONTIDAE			
<i>Heterocampa obliqua</i>	3		29-Jul-09
SPHINGIDAE			
<i>Paonias excaecatus</i>	3		29-Jul-09

### **Rentschler Field light trap samples**

CT: Hartford Co., East Hartford  
 Grassland near Cabela's  
 41.7568°N, -72.6236°W  
 26 Jun 2009  
 Shawn Binns and Shawn Deford collector

CT: Hartford Co., East Hartford  
 Grassland near Cabela's  
 41.7568°N, -72.6236°W  
 13 Aug 2009  
 Shawn Binns collector

### **Rentschler Field Light Trap Findings**

NAME	NUMBER FOUND	COMMENTS	DATE OF TRAP
FAMILY ARCTIIDAE			
<i>Virbia aurantiaca</i>	1		26-Jun-09
<i>Virbia aurantiaca</i>	14		13-Aug-09
<i>Grammia phalerata</i>	1		13-Aug-09
FAMILY GEOMETRIDAE			
<i>Orthonama obstipata</i>	6		26-Jun-09
<i>Euchlaena johnsonaria</i>	1		13-Aug-09
<i>Haematopis grata</i>	1		13-Aug-09
<i>Orthonama obstipata</i>	4		13-Aug-09
FAMILY NOCTUIDAE			
<i>Aletia oxygala</i>	1		26-Jun-09
<i>Anagrapha falcifera</i>	1		26-Jun-09
<i>Caenurgina erechtea</i>	10	(not <i>crassiuscula</i> )	26-Jun-09
<i>Euxoa tessellata</i>	1		26-Jun-09
<i>Lacinipolia renigera</i>	9		26-Jun-09
<i>Nedra ramosula</i>	1		26-Jun-09
<i>Ogdoconta cinereola</i>	1		26-Jun-09
<i>Phalaenostola laurentioides</i>	2		26-Jun-09
<i>Rivula propinqualis</i>	3		26-Jun-09
<i>Tarachidia candefacta</i>	2		26-Jun-09

<i>Agrotis ipsilon</i>	2		13-Aug-09
<i>Caenurgina erechtea</i>	3		13-Aug-09
<i>Galgula partita</i>	1		13-Aug-09
<i>Lacinipolia renigera</i>	10		13-Aug-09
<i>Macrochilo orciferalis</i>	3		13-Aug-09
<i>Orthodes crenulata</i>	1		13-Aug-09
<i>Palthis angulalis</i>	2		13-Aug-09
<i>Phlaenostola laurentoides</i>	15		13-Aug-09
<i>Pseudaletia unipuncta</i>	2		13-Aug-09
<i>Schinia arcigera</i>	1		13-Aug-09
<i>Tarachidia candefacta</i>	2		13-Aug-09
<i>Tetanolita floridana</i>	3		13-Aug-09
<i>Trichodestra legitima</i>	1		13-Aug-09
<i>Xestia adela</i>	1		13-Aug-09
FAMILY PYRALIDAE			
<i>Nemophila nearctica</i>	1		26-Jun-09

## Appendix C. 2009 BioBlitz Publicity

## **This section contains articles and other forms of publicity regarding the 2009 BioBlitz.**

### **One decade later, Connecticut State BioBlitz returns to Hartford's Keney Park to assess changes in region's biodiversity**

Hartford, CT. – During the summer of 1999, scientists from the University of Connecticut and across the state converged on Hartford's Keney Park. Large white tents were constructed as makeshift labs furnished with rows of microscopes and identification guides. Then, armed with nets, headlamps, and myriad other collecting tools, the scientists ventured into the 695 acres of urban park, canvassing the mix of hardwood, pine, and hemlock trees, the vernal pools, and the remnants of an ancient sand dune. Thus was the beginning of the first Connecticut State BioBlitz. Now, ten years later, the scientists are returning to Keney Park on June 12th and 13th and will explore the changes in plant and animal life occurring over the past decade. Specimen sorting and identification will take place at "BioBlitz Central" in the newly constructed Goodwin College campus on Riverside Drive in East Hartford. Counters will also be sampling the Connecticut River and inventorying the floodplain forests adjacent to the College.

The internationally recognized Connecticut State BioBlitz is a distinctive scientific endeavor—part contest, part festival, and part educational event. It will bring together school children, college students, and scientists from a number of universities and scientific institutions in a race against time to see how many species they can count in a 24-hour biological survey. "The BioBlitz generates interest in the sciences by offering the public a chance to interact with scientists conducting research in their community," says Jeremy Teitelbaum, dean of the College of Liberal Arts and Sciences at UConn. "At the same time it provides important data on the sustainability of our urban environments and helps us understand Connecticut's complex biodiversity."

Ten years ago, 91 scientists from the University of Connecticut's Department of Ecology and Evolutionary Biology and around the state identified a total of 1,369 species of plants, animals, and fungi during a 24-hour survey of Keney Park and nearby Riverside Park. A number of species listed as endangered, threatened or of special concern by the Connecticut Department of Environmental Protection were found including the Bald Eagle, Red Bat, Brown Thrasher, and Brotherly Clubtail Dragonfly.

"The BioBlitz offers a snapshot of the rich biodiversity found in Connecticut's metropolitan areas like Keney Park," says Leanne Kennedy Harty, Director of the Connecticut State Museum of Natural History. "It remains an excellent opportunity to encourage curiosity about science in children and adults, and over the years we have heard countless children say 'I want to be a scientist when I grow up!' after working alongside the researchers. This year we are excited to partner with Goodwin College, the Friends of Keney Park, and other Hartford-based groups to present variety of BioBlitz-centered education programs for the community."

The driving force behind BioBlitz is its scientific mission to survey the diversity of animal and plant life in an urban area. "What's particularly special about this BioBlitz is we finally have the opportunity to return to a previous blitz site, do a survey, and assess the differences," says David Wagner, Professor of Ecology and Evolutionary Biology, Co-director of the Center for Conservation and Biodiversity at UConn, and the lead BioBlitz organizer. "This BioBlitz promises to yield dozens of

biological treasures, and allow local citizens to come and see firsthand a splendid representation of Connecticut's rich natural heritage."

The 2009 BioBlitz is of special significance as it coincides with Year of Science, the worldwide celebration of the 200th anniversary of Darwin's birth. The American Institute of Biological Sciences, the National Academy of Sciences, and more than 400 other organizations, including the University of Connecticut, have declared 2009 a Year of Science, initiating a national year-long celebration designed to engage the public in science and to improve public understanding about the nature and processes of science.

The Dorr Foundation, known for supporting the development of science curricula for students in grades 6-12 and special education projects relating to conservation and the environment, provided a substantial financial contribution to the Bringing Back BioBlitz to Hartford Fund. Other major financial and in-kind contributors for the 2009 BioBlitz include the College of Liberal Arts and Sciences at UConn, Connecticut State Museum of Natural History, Center for Conservation & Biodiversity at UConn, Goodwin College, the Friends of Keney Park, the Cities of Hartford and East Hartford, the Connecticut Science Center, and the Department of Ecology and Evolution Biology at UConn. Significant partners also include Leadership Greater Hartford, Keney Park Trailblazers, Upper Albany Collaborative, and the VCB Association.

The Connecticut State BioBlitz has become the model for BioBlitz events all across the continent. Members of the public are encouraged to come the event on Saturday, June 13<sup>th</sup>, sign up for some of the mini-safaris, hear talks from the region's top-naturalists, and tour "BioBlitz Central," a wonderfully eclectic display of the region's plant and animal life. For additional information please visit <http://web.uconn.edu/mnh/bioblitz/> or call (860) 486-4460.

###

**Media Alert: Interview and Photo Opportunity**

Who: Members of the 2009 BioBlitz planning committee

What: Pre-BioBlitz site visit at Keney Park

When: Tuesday, April 14<sup>th</sup>, 10:00 a.m.

Where: Friends of Keney Park "Park House," 183 Windsor Ave, Hartford.

Media Contact:

David C. Colberg - 860.486.5690

[david.colberg@uconn.edu](mailto:david.colberg@uconn.edu)

For Immediate Release

### **The Ultimate Biodiversity Endeavor Returns to Greater Hartford**

Hartford, CT. – The internationally recognized Connecticut State BioBlitz returns to Greater Hartford, Friday, June 12th through Saturday, June 13th. The Connecticut State BioBlitz is a distinctive scientific endeavor—part contest, part festival, and part educational event. It will bring together school children, college students, and scientists from a number of universities and scientific institutions in a race against time to see how many species they can count in a 24-hour biological survey. This is the 10th anniversary of the Connecticut State BioBlitz and this year includes a return to Keney Park, site of Connecticut's very first BioBlitz in 1999. Scientist will have the opportunity to return to a previous blitz site, do a survey, and assess the differences.

On Friday, June 12th, public programs begin at the Keney Park Pond House, 323 Edgewood Street in Hartford at 5pm. Additional parking is available via Keney Park's Greenfield Street entrance, located at the Greenfield Street/Woodland Street intersection. This is the formal kick-off of the 10th anniversary of the Connecticut State BioBlitz with remarks from special guests: Hartford Councilman Luis Cotto; Mayor Eddie A Perez (invited); Hartford Councilman Robert Pinter; State Senator Eric Coleman; Congressman John Larson (invited); Bayyinah Loyons, President, Friends of Keney Park; Henry Hester, Vice President, Friends of Keney Park; State Representative Kenneth Green; Jeremy Teitelbaum, dean of the College of Liberal Arts and Sciences at UConn; and Richard Conniff, noted naturalist and author.

On Saturday, June 13th, public programming moves to Goodwin College River Campus, One Riverside Drive, East Hartford, 10 a.m. – 3 p.m. Visitors can join guided tours of BioBlitz Central—observing the BioBlitz scientists in action. Additionally, nature walks and talks will be offered, and visitors can experience an exciting array of information, resources, and activities presented by over 30 organizations. The BioBlitz closing ceremony will take place at 3:00 p.m, showcasing the final tally of species counted and additional BioBlitz highlights.

A total number of 1,369 Species were counted during the 1999 BioBlitz at Keney Park. In 2001, the world record of 2,519 species identified occurred during the Connecticut State BioBlitz in Danbury.

This year, twenty-six middle and high school students were selected as Jr. Scientists and will have an uncommon opportunity to work side-by-side with notable scientists from respected institutions throughout the region. The students will rotate among collecting specimens, making presentations to the public, and counting species throughout Saturday.

The 2009 Connecticut State BioBlitz is sponsored by The Dorr Foundation. Other major financial and in-kind contributors include the College of Liberal Arts and Sciences at UConn, Center for Conservation & Biodiversity at UConn, Goodwin College, the Friends of Keney Park, the City of Hartford, the Town of East Hartford, the Department of Ecology and Evolution Biology at UConn and the Connecticut State Museum of Natural History. Significant partners also include Leadership Greater Hartford, Keney Park Trailblazers, Upper Albany Collaborative, and the VCB Association.

BioBlitz is a celebration of the diversity of life in our backyards. As we gain valuable information about the natural world within urban environments, we can begin to understand the extent to which the urban areas are sustaining the richness of Connecticut's biodiversity. For additional information please visit <http://web.uconn.edu/mnh/bioblitz/> or call (860) 486-4460.

###

Media Contact:  
David C. Colberg - 860.486.5690  
[david.colberg@uconn.edu](mailto:david.colberg@uconn.edu)

For Immediate Release

### **Connecticut State BioBlitz identifies 1,715 species in Greater Hartford**

Hartford, CT. – The internationally recognized Connecticut State BioBlitz—part contest, part festival, and part educational event—held this year in the Greater Hartford area, documented 1,715 different species of plant and animal life. It brought together scientists, college students, and school children from a number of universities and scientific institutions in a race against time to see how many species they could find in a 24-hour biological survey. This was the 10th anniversary of the Connecticut State BioBlitz and included a return to Keney Park, site of the state’s first BioBlitz in 1999. Goodwin College’s Riverside Drive Campus in East Hartford served as the "base camp" and the hub of public activity.

Over the course of one day the scientists were able to identify 1,715 different plants and animals from Hartford’s Keney Park, and the areas surrounding Goodwin College, including adjacent reaches of the Connecticut River. Recorded species included numerous mammals, reptiles, amphibians, birds, fish, plants, mosses and lichens, algae, parasites, insects, spiders, and fungi. This year’s total exceeded that of the inaugural 1999 BioBlitz by nearly 350 species. The Connecticut State BioBlitz still holds the one-day world record for species counted with 2,519 species identified in 2001 from Tarrywile Park in Danbury.

Interesting and noteworthy finds include a breeding pair of bald eagles and a peregrine falcon. Several pregnant little brown bats mist-netted at Keney Park suggested the population there was healthy, in marked contrast to many of the state’s populations which are suffering from white-nose syndrome (WNS), a mysterious fungal disease. Notable reptiles include a spotted turtle, wood turtle, and a whopping 19-pound snapping turtle from Keney Cove that was used to host a National Geographic Crittercam. An eighteen-pound northern pike attracted considerable attention among those censusing the Connecticut River fish. A marvelous array of fungi—close to three times the number found at Keney in 1999—was collected by the Connecticut Valley Mycological Society. The BioBlitz yielded one new state record—a rare moth. According to David Wagner, Professor of Ecology and Evolutionary Biology, Co-director of the Center for Conservation and Biodiversity at UConn, and the BioBlitz organizer, seven of caterpillars the rare moth (*Ufeus*) were found along the trunk of a majestic cottonwood growing by the Connecticut River near Goodwin College.

Also participating were 26 middle school and high school students from across Connecticut that were selected as Jr. Scientists to work alongside notable scientists and some of the region’s top naturalists. The students had guided mini-safaris, collected their own specimens, and offered presentations to the public.

The Dorr Foundation sponsored the 2009 Connecticut State BioBlitz. Other major financial and in-kind contributors include the College of Liberal Arts and Sciences at UConn, Center for Conservation & Biodiversity at UConn, Goodwin College, the Friends of Keney Park, the City of Hartford, the Town of East Hartford, the Department of Ecology and Evolutionary Biology at UConn, the Connecticut State Museum of Natural History, the Connecticut Department of Environmental Protection, Leadership Greater Hartford, Keney Park Trailblazers, B.A.S.S. Federation Nation, Upper Albany Collaborative, and the VCB Association.

The Connecticut State BioBlitz has become a model for more than 500 similar events around the globe, whose singular charge is to reveal the wonderful diversity of life occurring just outside our backdoors. “The discovery of more than 1,700 kinds of wildlife in Greater Hartford was far richer than any of the event’s organizers would have imagined,” says David Wagner. “The event underscored the important role

that urban environments can play in sustaining Connecticut’s biological riches, and encourages curiosity and excitement about science in both children and adults.” For additional information please visit <http://web.uconn.edu/mnh/bioblitz/> or call (860) 486-4460.

###

Media Contact:  
David C. Colberg - 860.486.5690 - david.colberg@uconn.edu  
2009 CT State BioBlitz images available upon request.

**Connecticut State BioBlitz Identifies 1,715 Species In Greater Hartford On Campus** Submitted by David Colberg on 2009-06-25.

The internationally recognized Connecticut State BioBlitz part contest, part festival, and part educational event held this year in the Greater Hartford area, documented 1,715 different species of plant and animal life. It brought together scientists, college students, and school children from a number of universities and scientific institutions in a race against time to see how many species they could find in a 24-hour biological survey.



David C. Colberg

This was the 10th anniversary of the Connecticut State BioBlitz and included a return to Keney Park, site of the state's first BioBlitz in 1999. Goodwin College's Riverside Drive Campus in East Hartford served as the "base camp" and the hub of public activity.

A 1.5 inch long Painted Turtle was one of the 1,715 species documented for the 2009 Connecticut State BioBlitz.

Over the course of one day, the scientists were able to identify 1,715 different plants and animals from Hartford's Keney Park, and the areas surrounding Goodwin College. This year's total exceeded that of the inaugural 1999 BioBlitz by nearly 350 species. The Connecticut State BioBlitz still holds the one-day world record for species counted with 2,519 species identified in 2001 from Tarrywile Park in Danbury.

Interesting and noteworthy finds include a breeding pair of bald eagles and a peregrine falcon. Several pregnant little brown bats mist-netted at Keney Park suggested the population there was healthy, in marked contrast to many of the state's populations which are suffering from white-nose syndrome (WNS), a mysterious fungal disease.

Notable reptiles include a spotted turtle, wood turtle, and a whopping 19-pound snapping turtle from Keney Cove that was used to host a National Geographic Crittercam. An 18-pound northern pike attracted considerable attention among those censusing the Connecticut River fish.

A marvelous array of fungi -- close to three times the number found at Keney in 1999 -- was collected by the Connecticut Valley Mycological Society. According to David Wagner, Professor of Ecology and Evolutionary Biology, co-director of the Center for Conservation and Biodiversity at UConn, and the BioBlitz organizer, seven caterpillars of a rare moth (*Ufeus*) were found along the trunk of a majestic cottonwood growing by the Connecticut River near Goodwin College.

The Dorr Foundation sponsored the 2009 Connecticut State BioBlitz. Other major financial and in-kind contributors include the College of Liberal Arts and Sciences at


UConn, Center for Conservation & Biodiversity at UConn, Goodwin College, the Friends of Keney Park, the City of Hartford, the Town of East Hartford, the Department of Ecology and Evolutionary Biology at UConn, the Connecticut State Museum of Natural History, the Connecticut Department of Environmental Protection, Leadership Greater Hartford, Keney Park Trailblazers, B.A.S.S. Federation Nation, Upper Albany Collaborative, and the VCB Association.

The Connecticut State BioBlitz has become a model for more than 500 similar events around the globe, whose singular charge is to reveal the wonderful diversity of life occurring just outside our back doors.



# Appendix D. Image Gallery

*This section features various images used for advertisement and publicity for the 2009 BioBlitz.*




**CONNECTICUT STATE**  
**BioBlitz**

*THE ULTIMATE BIODIVERSITY ENDEAVOR  
RETURNS TO GREATER HARTFORD*

- ◆ Part Contest ◆
- ◆ Part Festival ◆
- ◆ Part Educational Event ◆
- ◆ COMPLETELY AMAZING ◆

**June 12<sup>th</sup> Keney Park Pond House, 3 pm – 6 pm**  
**June 13<sup>th</sup> Goodwin College, 10 am – 3 pm**  
Visit: <http://web.uconn.edu/mnh/bioblitz/BioBlitz2009.html>

***This FREE and PUBLIC event is brought to you in part by:***



**SPONSORED BY THE DORR FOUNDATION**

## A - 2009 BioBlitz Poster

<b>2009 Connecticut State BioBlitz</b>		<b>Schedule of Events</b>	
<b>Keney Park's Pond House – 323 Edgewood Street, Hartford</b>		<b>Friday, June 12<sup>th</sup>, 5 p.m. – 6:30 p.m.</b>	
<b>Goodwin College River Campus – One Riverside Drive, East Hartford</b>		<b>Saturday, June 13<sup>th</sup>, 10 a.m. – 3 p.m.</b>	
<p><i>Keney Park Pond House, Hartford</i> <i>Friday, June 12<sup>th</sup></i></p> <p><b>Opening Event</b> 5 p.m. – 5:45 p.m. The formal kick-off of the 10<sup>th</sup> anniversary of the Connecticut State BioBlitz at Keney Park, site of the first Connecticut BioBlitz in 1999. Remarks from special guests including: Hartford Councilman Luis Cotto; Mayor Eddie A. Perez (invited); David Wagner, BioBlitz coordinator and UConn professor; Jeremy Teitelbaum, Dean of the College of Liberal Arts and Sciences at UConn; State Senator Eric Coleman; Congressman John Larson (invited); Bayvinah Loyons, President, Friends of Keney Park; Henry Hester, Vice President, Friends of Keney Park; State Representative Kenneth Green; and Richard Conniff, Naturalist and Author.</p> <p><b>Reception, Initial Findings, and Book Signing</b> Following the opening event, scientists, along with Middle and High School students selected as Jr. Scientists, will share some of the initial findings of the BioBlitz survey.</p> <p>Richard Conniff's new book "Swimming With Piranhas at Feeding Time: My Life Doing Dumb Stuff With Animals" will be available to purchase and have signed.</p>	<p><i>Goodwin College, East Hartford</i> <i>Saturday, June 13<sup>th</sup></i></p> <p><b>Main Floor</b> <b>BioBlitz Exhibitors</b> 10 a.m. – 2:45 p.m. Experience an exciting array of information, resources, and activities presented by over 30 organizations.</p> <p><b>Community Room</b> <b>BioBlitz Central Guided Walks &amp; Scientist Base Camp</b> 11:30 a.m. – 2:45 p.m. Guided walks will showcase an assortment of BioBlitz activities, including observation of BioBlitz scientists in action.</p> <p><b>North Courtyard</b> <b>BioBlitz Closing Ceremony</b> 3:00 p.m. – 3:45 p.m. Final tally of species and presentation of BioBlitz highlights.</p> <p><b>Acknowledgements</b> <i>The 2009 Connecticut State BioBlitz is sponsored by The Dorr Foundation. Other major financial and in-kind contributors include the College of Liberal Arts and Sciences at UConn, Center for Conservation &amp; Biodiversity at UConn, Goodwin College, the Friends of Keney Park, the City of Hartford, the Town of East Hartford, the Department of Ecology and Evolutionary Biology at UConn, the Connecticut State Museum of Natural History, the Connecticut Department of Environmental Protection, Leadership Greater Hartford, Keney Park Trailblazers, Upper Albany Collaborative, and the VCB Association.</i></p>	<p><i>Saturday Special Programs:</i></p> <p><b>Patio Talks, North Courtyard</b></p> <p>11:15- Crayfish, Shrimp, and Kim Alberto Mamo, North East Naturalist</p> <p>11:45- Caterpillars Michael Singer lab, Wesleyan University</p> <p>12:15- Spiders, Centipedes, and Scorpions John Wallace</p> <p>12:45- Connecticut's Fungi Connecticut Valley Mycological Society</p> <p>1:15- Aquatic Insects Alex Meleg, UConn</p> <p>1:45- Turtlecams in Action Tobias Landberg, UConn</p> <p>2:45- Dangerous Bugs Parker Gambino, Res. Assoc. American Museum of Natural History</p> <p><b>Auditorium Presentations</b></p> <p>11:00- CT Turtles Dennis Quinn, CTHerpConsultant LLC</p> <p>11:30- CT River Turtlecams in Action Tobias Landberg, UConn</p> <p>12:00- Homing and the Herring Eric Schultz, UConn</p>	<p><i>(Continued)</i></p> <p>12:30- Small Mammals of Connecticut Jamie Fischer, White Memorial Foundation</p> <p>1:00- Invasive Plants Logan Senack, Connecticut DEP</p> <p>1:30- Chimney Swifts Margaret Rubega, UConn</p> <p>2:00- Connecticut Snakes Chuck Anicelli, Herpetological Surveys LLC</p> <p>2:30- Bats Jenny Dickson, Connecticut DEP</p> <p><b>Activities</b></p> <p>Nature Art Chrissy Miranda 11:30 a.m. and 1:30 p.m. (one hour program) Location: Goodwin College, Room 205</p> <p>Visit DEP's Electroshock Boat Connecticut DEP Each hour at 10:30, 11:30, 12:30, and 1:30 PM Location: Goodwin Dock, behind building at 133 Riverside Drive (next door to Riverside Grill)</p> <p><i>*Program information (times, locations, and presenters) subject to change.</i></p>

## B - 2009 BioBlitz schedule of events



## 2009 Connecticut State BioBlitz June 12 & 13



The University of Connecticut's Center for Conservation and Biodiversity and Museum of Natural History are co-organizing the 2009 Connecticut State BioBlitz. Don't miss this world class event and opportunity to see many of Hartford's most interesting "residents." The second day (Saturday) is given to public events: lectures, mini-safaris with top naturalists, and guided tours through the event's "BioBlitz Central," where scientists race to sort, identify, and catalogue their specimens. Twenty-four middle school and high school students from around the state will be selected to participate in a BioBlitz Camp, during which they will work side-by-side with the invited scientists. This year's event is being sponsored by the Dorr Foundation, Goodwin College, Friends of Keney Park, City of Hartford, and several environmental organizations.

### What is BioBlitz?

Designed as part contest, part festival, part educational event, and part scientific endeavor, BioBlitz brings together scientists from UConn's Department of Ecology and Evolutionary Biology and numerous other groups and organizations from across the Northeast in a race against time to see how many plant and animal species they can count in a 24-hour biological survey of a defined area within a Connecticut city or town.

### Why Do It?

**TO INCREASE PUBLIC AWARENESS:** BioBlitz elevates the public's awareness of the variety of life in their immediate neighborhood and the services these various species provide to improve the quality of all our lives. Too often people take for granted clean water and air, fertile soil, or the pollination services of insects. What better way to address these topics and expose people to the marvelous array of wildlife that can be found in Connecticut's neighborhood parks?

**TO EXCITE KIDS ABOUT SCIENCE:** The event generates unbridled energy and enthusiasm among those who participate—scientists, students, and the general public alike. Scientists from across the region and representing many disciplines will join in the quest, share their passions and knowledge, and work toward our common goal: to record as many plants and animals as possible within 24 hours.

**TO GENERATE DATA:** The past seven Connecticut BioBlitzes have yielded a number of worthy scientific discoveries: new state records and many sightings of state-rare species. BioBlitzes have proved useful in the early detection of several invasive species. In addition, they generate specimens for teaching and research collections.

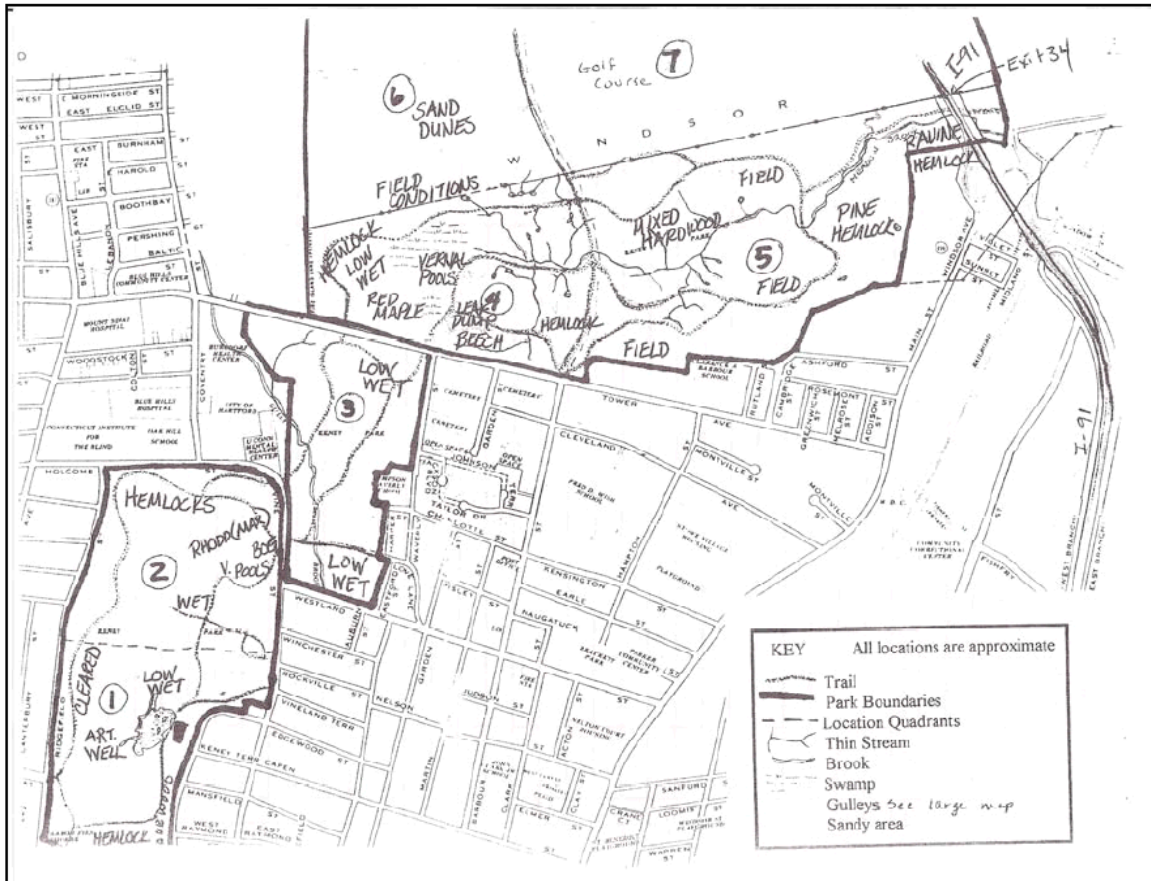
### Goodwin College and Keney Park in 2009

The event will kick off at 3:00 p.m. on Friday afternoon, June 12th, and end Saturday afternoon, June 13th. "BioBlitz Central" will be at Goodwin College on Riverside Drive with parallel BioBlitz events at Keney Park. We will be looking for wildlife along the Connecticut River corridor south to Wethersfield Cove and throughout the 693 acres of Keney Park and the Matianuck State Preserve.

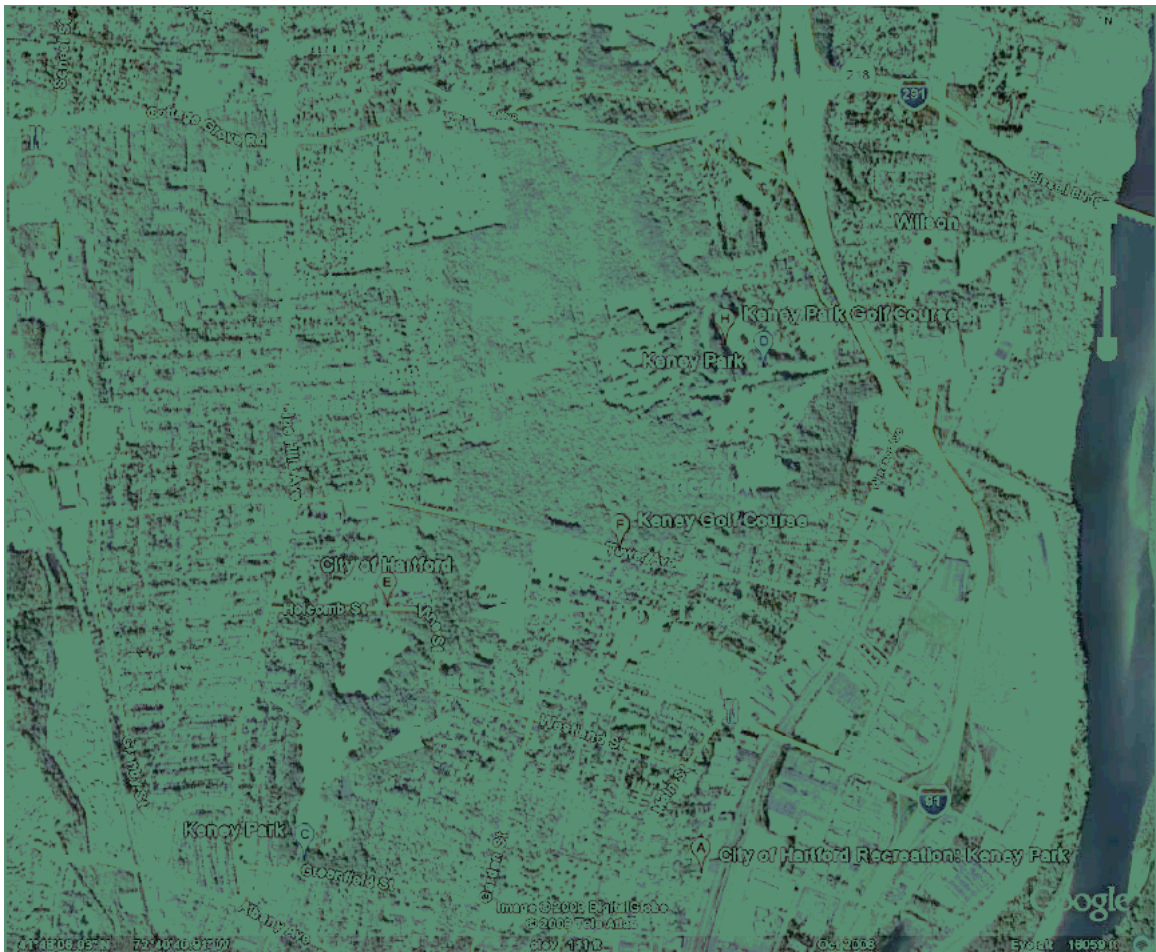
### For More Information

As we get closer to June, event details will be posted at [www.mnh.uconn.edu/BioBlitz/](http://www.mnh.uconn.edu/BioBlitz/). All members of the public are urged to attend as observers. Counters, vendors, organizations, and those wanting to actively participate in the BioBlitz should register with Kathy Tebo at [kathleen.tebo@uconn.edu](mailto:kathleen.tebo@uconn.edu).

[www.mnh.uconn.edu/BioBlitz/](http://www.mnh.uconn.edu/BioBlitz/)



D - Hand-drawn Keney Park Map



*E - Google Earth map of Keney Park*

# BioBlitz

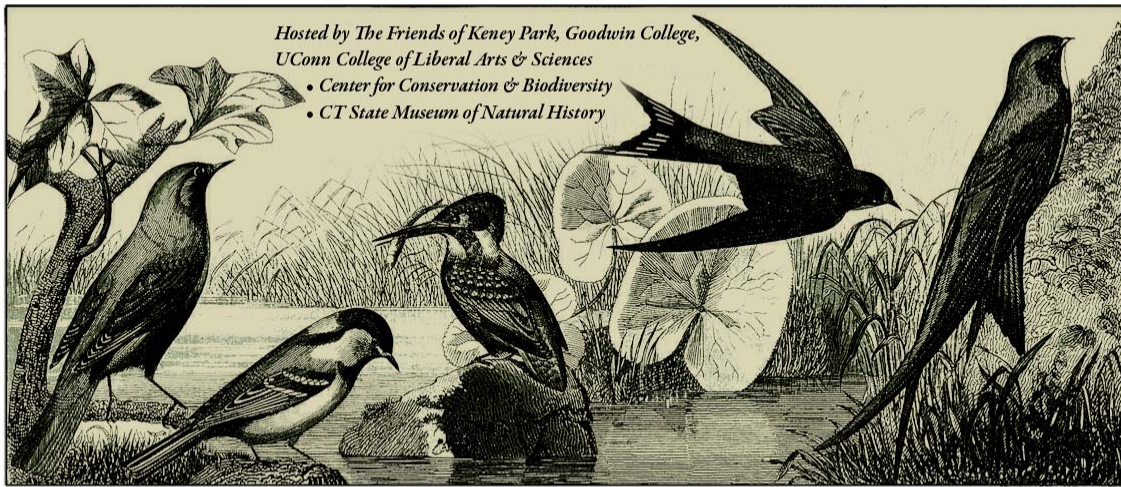


# Scientist Parking Permit

*F - Official 2009 BioBlitz parking permit*



YOU ARE INVITED TO THE  
**2009 BioBLITZ OPENING EVENT**



Hosted by *The Friends of Keney Park, Goodwin College,*  
*UConn College of Liberal Arts & Sciences*  
• *Center for Conservation & Biodiversity*  
• *CT State Museum of Natural History*

**KENEY PARK, HARTFORD, CT • JUNE 12<sup>TH</sup> • 5:00 – 8:00 PM**

PLEASE JOIN US FOR THE 10TH ANNIVERSARY BIOBLITZ OPENING EVENT AT KENEY PARK, SITE OF THE FIRST CONNECTICUT BIOBLITZ IN 1999. THE FORMAL KICK-OFF PROGRAM WILL BEGIN AT 5PM AND INCLUDE REMARKS FROM CONGRESSMAN JOHN LARSON, AUTHOR RICHARD CONNIF, AND OTHERS. A RECEPTION WILL FOLLOW, WHERE SCIENTISTS WILL BE WORKING ON THE SURVEY AND INITIAL BIOBLITZ FINDINGS WILL BE AVAILABLE. ATTENDING THE RECEPTION WILL BE MIDDLE AND HIGH SCHOOL STUDENTS SELECTED AS JUNIOR SCIENTISTS TO PARTICIPATE IN THIS YEAR'S BIOBLITZ CAMP. SPONSORED BY THE DORR FOUNDATION. PLEASE RSVP BY JUNE 5TH TO LYNN.GRABOWSKI@UCONN.EDU.

*G – 2009 BioBlitz opening event flyer*

## **Appendix E. Twig Composition**

### **MAMMALS**

*Leader - Jenny Dickson*

James Fisher

Erin Victory

Christina Kocer - bats and other mammals

Jason Leavings and DEP intern (Andraya Elrich)

### **REPTILES/AMPHIBIANS**

*Leader - Susan Herrick*

Chuck Ancelli

Kristiina Hurme

Brian T. Roach

Tobias Landberg and Leah Herity

Dennis Quinn (radio telemetry)

Elizabeth Tempe

### **BIRDS**

*Leader - Chris Elphick*

Margaret Rubega  
Chris Field  
Shannon Kearney  
Diego Sustaita  
Nancy LaFleur  
Kevin Burgio

### **FISH**

*Leader - Eric Schultz*

John Voletta and other students  
Neil Hagstrom (CT DEP)  
Justin Davis  
Chelsea Apito  
Kevin Job  
Jeff Divino

### **HIGHER PLANTS**

*Leader - Ken Metzler, Bryan Connolly*

Les Mehrhoff (Friday night)  
Paul Lewis  
Nic Tippery, + 3 Middlebury Students  
Patricia A. Bresnahan

### **LOWER PLANTS** (Mosses, lichens, and liverworts):

*Leader - Bernard Goffinet*

Jessica Budke  
Juan Sanchez

### **SMMMNAI (explain)**

*Leader - Louise Lewis (with two students)*

Gina Filloramo

### **INSECTS**

*Leader - Jane O'Donnell, Mike Thomas*

Richard Moore  
Ed Force (Friday Night)  
Laura Saucier (plus freshwater mussels)  
Ryan Wagner

### **COLEOPTERA**

Bill Krinski  
Raul Ferreira  
Don Chandler  
Shawn Deford



## **DIPTERA**

Chris Maier  
Mike Thomas  
Ryan Wagner

## **HYMENOPTERA**

Parker Gambino  
Bees: Michael Viet  
Ellen Bulger  
Sabina Perkins  
Joan Milan

## **LEPIDOPTERA**

Butterflies:

Greg Hanisek  
Bill Yule  
Mike Thomas

Moths:

Ben Williams  
Mark Mello + intern (pyralids)  
Eric Quinter  
Moria Robinson (photography)  
Ben Williams  
Dave Wagner (tortricids and other microleps)

Caterpillars:

Mike Singer (+ Wesleyan students)  
Peri Mason  
Angela Smolnich  
Charlie and Weston Henry

## **ODONATA**

Mike Thomas and Alex Meleg

## **AQUATICS**

Alberto Burke-Mimo  
Kirsten Martin  
Jason Leavings  
Alex Meleg  
Laura Saucier

## **ORTHOPTERA AND OTHER PRIMITIVE INSECTS**

Hemiptera: Jane O'Donnell

Mike Neckermann

Neuroptera: Ray Pupedis

Charles Henry

Orthoptera and other primitive insects: Shawn Binns

Ryan Wagner

## **NON-INSECT TERRESTRIAL ARTHOROPODS**

Mites: Michael McAloon

Spiders: Julie Henry

Bobby Watson

Robby

Bill Harper

Ray Pupedis

Jon Wallace

Tim Farkas

Other Wesleyan student

## **FUNGI** (Connecticut Valley Mycological Society)

*Leader – Walt Rode*

Connie Borodenko

Bill Bynum

Dewei Li

Terry and Hartey Stoleson

Bill Yule

## **PLANT PATHOGENS**

Wade Elmer

## **LIVE WEBSITE**

Chris Jelly

## **VIDEOGRAPHY**

Haley Lane + other students from Rham

## **UNASSIGNED VOLUNTEER**

Andraya L Ehrlich