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THE RAHWAY RIVER ASSOCIATION

BIO-BLITZ
2005



RESULTS & FINDINGS

Lenape Park
Union County, N.J.

A 24-hour intensive effort to
measure the level of biodiversity at Lenape Park

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BIO-BLITZ 2006 at
ASHBROOK RESERVATION
JUNE 23 & 24

BIO-BLITZ 2005

Why did we do it and what does it all mean?

Nature teems with life in Lenape Park, a 450-acre Union County park in Cranford, Westfield, Kenilworth and Springfield. That was confirmed by New Jersey's first ever Bio-Blitz, held in the park May 20-21, 2005.

A Bio-Blitz is an effort to identify the different forms of life that can be found in a given location over a 24-hour period, with specialists looking for whatever grows, crawls, swims, flies or walks. The one held at Lenape, sponsored by Union County and the Rahway River Association in cooperation with several other organizations, found a plethora of flora and fauna—**660 different species**, ranging from mushrooms to oak trees, from ants to coyote and deer, and from bees and butterflies to hawks.



Turkey Tale Fungus

To identify these species, scientists, naturalists, volunteers and park visitors tramped through Lenape's fields and forests and along the banks of the Rahway River and Nomahegan Brook starting the evening of May 20 and continuing through the following day. Their goal was not only to identify as many living things as possible, but also to raise awareness of the incredible variety of life that can be found even in an urban park.

RESULTS:

Plants: Alex Nappi, expert specialist with the U.S. Department of Agriculture, and his Plants Team found the expected large number of invasives—plants not native to this area--when he surveyed Lenape. Most significantly, he found much Japanese knotweed, which like so many other invasive plants that crowd out native growth, had been introduced because of its beauty. But he also found native plants that were doing well, including the delicate trout lily, which grows in the understory in the forested areas, and the equisetum, a plant with so old a lineage that he described it as “prehistoric.” A less welcome native plant that also was flourishing was poison ivy. The total number of plants found was **181** species.

Fungi: May isn't the best time of year for mushrooms. That's one reason why Dorothy Smullen, former president of the New Jersey Mycological Society, along with a fellow member of the society and several park visitors, found only **19 species** of fungi during the Bio-Blitz. Those that she did find were for the most part left over from previous years. A tally taken the fall, when fungi proliferate, would have been far different.



Dr Chip Codella instructs the Insect Team

Insects: Judged on numbers alone, Lenape Park—like the rest of the world—belongs to the insects and their relatives. Sylvio Codella and his research students at Kean University counted a total of **333 species** (50 percent of the Bio-Blitz total), ranging from the familiar grasshoppers, bees and butterflies to those that have only Latin names. Among the highlights were 32 species of beetles, 35 species of spiders, and 24 species of parasitic ichneumonid wasps, which help keep pest populations in check. And that's just the start. At the height of summer, when the populations of insects also reach their height, the numbers would have been even greater.

Fish: Staff from the NJ Department of Environmental Protection, Div. of Fish & Wildlife sampled the North Branch of the Rahway River as well as the ponds at the Kenilworth Blvd. and Nomahegan Drive entrances to the park. The method of sampling included electro-shocking (using mild electrical currents to temporarily stun fish for easy capture and identification) and

reel for the **19** fish sam-rainbow ant surprise found down-original indicating clean and support



Jimmy Occi helps i.d. fish

Reptiles and amphibians: Assisted by three team members and three members of the public, Joe Filo, naturalist at Trailside Nature and Science Center, identified **10 species** of herps—frogs, snakes, turtles and, most frequently, red-backed salamanders. Surprisingly, however, they didn't find large numbers of any species, not even of frogs.

Birds: Frank V. Budney and Tom Parlapiano of the Friends of Lenape Park coordinated three teams of birders who fanned out across various sections of the park. They saw and/or heard **90 species**, including owls, warblers, woodpeckers, turkey vultures, ducks and the ever-present Canada geese. Among the birds they recorded were four species that are threatened or endangered in New Jersey: Savannah sparrow, red-shouldered hawk, bobolink and black-crowned night heron, the last being the only one of the four that nests in the park.



Mammals: The squirrels that scuttle up trees at the approach of visitors and the deer poised at the edge of the woods, ready to flee from humans, were only two of the **11** mammals identified by Kristi MacDonald-Beyers, conservation and policy associate with the New York-New Jersey Baykeeper. She set out five “scent stations,” circles of white sand with tuna-scented cotton balls in the middle. Animals that came to investigate and left their tracks included a coyote, who ventured surprisingly near the Bio-Blitz headquarters with its human activity. Other animals whose sign was spotted included red fox and woodchuck, identified by their burrows. Deer were identified by their scat (droppings).

PARTICIPATING ORGANIZATIONS:

**The Rahway River Association
Union County Board of Chosen Freeholders
Union County Department of Parks, Recreation & Facilities
Trailside Nature & Science Center
Friends of Lenape Park
Union County Rutgers Extension Service
NJDEP Watershed Ambassador Program
National Bio-Diversity Parks, Inc.
The Brooklyn Botanical Garden
NJ Mycological Society
Kean University
Rutgers University
US Department of Agriculture
NJ Department of Environmental Protection, Division of
Natural & Historical Resources
NJDEP, Division of Fish Game & Wildlife**



Team Leaders:

**Botany: Alex Nappi
Birds: Frank Budney
Entomology: Dr. Sylvio (“Chip”) Codella
Herpetology: Joe Filo
Macro Invertebrates: Holly Jantz
Mammals: Kristi MacDonald-Beyers
Mycology: Dorothy Smullen
Fish: Shawn Krause**

Thanks also to the Bio-Blitz Committee

**“Without habitat, there is no wildlife. It’s that simple.”
-Wildlife Habitat Canada**

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