

BioBlitz nets nearly 1,000 species

by Dan West

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6/21/10 — For 24 hours last weekend, the Lapham home on Clay Head was transformed into “science central” — a perpetual motion machine driven by the constant influx of plant and animal specimens brought in from the northern section of Block Island for classification and cataloging by the Rhode Island Natural History Survey BioBlitz.

The team of nearly 68 scientists, 112 volunteers and 15 artists — nearly 200 total — from across New England collected 916 unique species in just one day on Block Island. The preliminary count is likely to grow over the next few months as samples are studied further and more carefully classified.

At the Lapham property, two large tents sheltered a make-shift field laboratory, comprised of rows of tables each with its own microscope; spread out on each table were plant samples, bugs being preserved, buckets with live sea creatures and text books to help the scientists identify each individual species.

First Warden Kim Gaffett, attending the event as a chairperson of the RINHS, said she was pleased with the results of the many months of planning that went into organizing the event.

“I think it turned out great overall,” Gaffett said. “Most people seemed to really enjoy it; it was just a great event for Block Island and it was great for science.”

All around the camp volunteers gathered around scientists displaying an interesting find or organizing parties to venture out to collect more samples. The stars of the BioBlitz remained the many plants and animals found, including the American Burying Beetle (*Nicrophorus americanus*), which is listed federally as an endangered species.

The Burying Beetle, named for its winter survival strategy of burrowing underground to escape the cold, made its tour throughout the campsite after it was captured Saturday night. Lou Perrotti, who is in charge of the American Burying Beetle restoration project at the Roger Williams Zoo and is specially permitted to handle the beetles, found the beetle in a bush after it had been attracted to a light trap.

This extremely rare insect, with its colorful red-orange spots over a jet-black body and its relatively large size (just over an inch long) was definitely a crowd pleaser.

Block Island is one of the few remaining habitats where this unique beetle can be found. It has disappeared from many of its old habitats, which covered most of the eastern U.S. While the beetles are well-documented residents of the south side of the island, the team was particularly interested in finding one on the northern end where there has been less evidence of their abundance. The find provided researchers evidence that the beetles are breeding in the wild and spreading over the entire island.

While the Burying Beetle, along with the 59 other beetle species found, may have satisfied the

entomologists, the botanists were excited by a different find made by RINHS Executive Director Dr. David Gregg, who discovered a Pale Green Orchid (*Platanthera flava*) just north of Mansion Road.

The orchid is listed as an endangered species in Rhode Island and was a somewhat surprising find, said Gregg. The two-foot tall plant gets its common name from the lightly colored green petals it produces on its quarter-inch flowers. It was also found in a second location across from the Block Island Club.

“The species is on the state endangered list,” Gregg said. “Like the burying beetle, it seems, with rare orchids, Block Island is a special place.”

A new addition to the BioBlitz team was a group of artists from painters to sculptors and even a storyteller who will be documenting the event with their artwork.

“It was great to have [the art team] with us this year, [they] added a lot and helped put the biodiversity and the event into a whole new light,” Gregg said in a post to the RINHS website. “Should we be looking forward to a gallery show in the fall? I can’t wait.”

Kira Stillwell said the marine team was the largest its been in the 10-year history of the event and turned out many interesting specimens including a Jonah crab (*Cancer borealis*), which is normally found in deeper water and is excellent to eat.

“We haven’t had a full-on marine location in a few years,” Stillwell said. “The marine team really came out of the woodwork for this one.”

The team found 24 species of salt and fresh water fish including a 23-pound striped bass (*Morone saxatilis*) as well as dogfish (also known as “sand sharks” — *Squalus acanthias*). The teams used lines and nets along Andy’s Way to catch many types of fish and shellfish that inhabit the shallow waters of the Great Salt Pond.

The scientists and naturalists were constantly interacting with younger volunteers, many of them middle schoolers from Middletown and Providence who had never participated in a study like this.

Rain deters neither scientists nor moths

On Saturday night the scientific encampment, which spread out in a miniature tent village across the Lapham property, was flooded with torrential downpours and constant thunder and lightning. The team was prepared for rain and able to continue the count undeterred; however, it was noted that certain species might have been missed due to the rain. Stillwell commented, “If you want to be a field biologist you are going to get wet.”

One group that was particularly impacted by the wet weather was the bee team, which identified 14 bee species. However, team leader Jerry Stage said that he had collected samples a few days before the Blitz started and had identified more than 30 species, which unfortunately could not

be counted in the official numbers.

“Unlike with the botanists who got such great numbers, bees don’t come out if it’s not sunny and nice,” Stage said. “The flowers will wait.”

Teams were still out into the late hours spreading huge nets to catch bats and scooping up moths drawn in by a large lamp. While no bats were caught, probably due to the wet weather, 126 species of moths were collected, nearly 30 more than had been previously documented on the island.

One of the more unusual species found was the bird-dropping moth, or Beautiful Wood Nymph (*Eudryas grata*) that uses camouflage to imitate avian feces; this defense mechanism helps it avoid being eaten by predators. Even in the dark, scientists were still active looking through microscopes identifying their samples in a race to finish by the 24-hour deadline.

Come morning, teams headed out to collect the many insect and mammal traps that were set over night. The teams found some small rodents but the mammal count remained low even though it included dogs, cats and even people.

The morning was a mad dash to identify and count as many species as possible. Volunteers checked off species on a large board at science central once it had been positively identified.

After the 24-hour period came to a close at noon on Sunday, Gregg announced that it was time to “put the pencils down” and begin to count the numbers. Once the final tally was in it was clear that while this was not a record-breaking year, everyone was still very pleased with the results.

Of the 916 species identified in the preliminary results, Gregg reported 436 animals, 381 plants, 92 Mycota (lichens) and seven Protists (funguses/molds).

“It was a terrific event, just outstanding,” Gregg said. “This was definitely the most successful BioBlitz in its 11-year history. We had the most people and performed the most thorough search of any [BioBlitz] so far.”

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