

Overview

The 2nd Acacia Bioblitz was held on July 31st, 2018. In all, 465 species were described. The last Acacia Bioblitz happened in the fall of 2013, shortly after Cleveland Metroparks acquired the property.

There were 42 participants at the day of event and another 2 contributed surveys at other times. Participants encompassed a wide range of expertise and disciplines, both internally from within the Cleveland Metroparks Natural Resource Department and also representatives from Summit County Park District, Michigan State University, Case Western Reserve University, University of Akron, and Cleveland Institute of Music. Natural Resource seasonal staff also came out to contribute and it was an excellent educational opportunity to learn outside of their normal work duties.

Data Collection

It was determined that the data collection for the Bioblitz would be recorded in the field using iNaturalist and a project was setup for that exclusive purpose. Likewise, eBird was used for many of the avian species. This simplified the process of transcription of data from paper records and also had the added benefit of geotagging species occurrences within the reservation. Most of these records have a photo voucher as well and can be verified by other experts regionally. By no means was it a perfect system as not all contributors were familiar with iNaturalist or had a mobile device with which to collect data, but overall it streamlined the process with so many people involved. In all, an impressive 687 observations were made using the iNaturalist project.

General Observations & Conservation Implications

Overall, there were no exceptional or rare species found at Acacia during the Bioblitz. This is unsurprising considering the naturalization of the reservation from a golf course since acquisition by Cleveland Metroparks in 2011. The park is bordered on all sides by a highly urbanized residential and commercial area which limits the immigration of many species that could potentially colonize the habitat. In the future, land managers will consider reintroductions of species that would historically have been present that might not otherwise colonize the park. That stated, the biodiversity at Acacia has increased greatly with different habitat enhancement projects and restoration efforts such as prairie plantings and wetland creation. With these changes in the habitats, there has been an increase in meadow and wetland specialist species. Following is a brief synopsis of results from the Bioblitz broken out into various taxonomic groups. Also included are descriptions of participants and survey methods utilized.

Amphibians

Amphibian surveys were conducted prior to the Bioblitz by Dr. Mike Benard of Case Western Reserve University. Various pools and wetlands created internally and through the WRRSP grant were sampled using funnel traps and audio surveys. While only 3 species were recorded, one sub adult bullfrog was recorded, possibly indicating a recent colonization.

Anaxyrus americanus-American Toad

Lithobates clamitans-Green Frog

Lithobates catesbeianus-American Bullfrog

Birds

43 species of birds were recorded during the Bioblitz. Bird surveys were conducted in the morning in a roving fashion and led by Tim Krynak. Jim Heflich, a CMP volunteer also contributed. Fewer species were recorded than the 2013 Bioblitz, which was conducted during the fall migration and somewhat accounts for species differences.

Agelaius phoeniceus- Red-winged blackbird
Tringa solitaria-Solitary Sandpiper
Anas platyrhynchos-Mallard
Melanerpes carolinus- Red-bellied Woodpecker
Ardea Herodias- Great blue heron-
Picoides pubescens- Downy Woodpecker
Branta Canadensis-Canda goose
Buteo jamaicensis- Red tailed Hawk
Colaptes auratus-Northern Flicker
Contopus virens- Eastern Wood-Pewee
Chaetura pelagica- Chimney swift
Butorides virescens- Green Heron
Cyanocitta cristata- Blue jay
Poecile atricapillus- Black-capped Chickadee
Troglodytes aedon- House Wren
Thryothorus ludovicianus- Carolina Wren
Sialia sialis- Eastern Bluebird
Hirundo rustica- Barn swallow
Sturnus vulgaris- European Starling
Bombycilla cedrorum-Cedar Waxwing
Cathartes aura- Turkey Vulture

Melanerpes erythrocephalus-Red-headed woodpecker
Melospiza melodia-Song sparrow
Quiscalus quiscula-Common Grackle
Passer domesticus-House sparrow
Haliaeetus leucocephalus-Bald Eagle
Sitta carolinensis-White-breasted nuthatch
Spinus tristis-American goldfinch
Spizella passerine-Chipping sparrow
Turdus migratorius-American robin
Tyrannus tyrannus-Eastern kingbird
Vireo gilvus-Warbling vireo
Zenaida macroura-Mourning dove
Charadrius vociferous-Killdeer
Sayornis phoebe-Eastern Phoebe
Progne subis-Purple Martin
Tachycineta bicolor-Tree Swallow
Mimus polyglottis-Northern Mockingbird
Cardinalis cardinalis-Northern Cardinal
Pheucticus ludovicianus-Rose-breasted Grosbeak
Icterus galbula-Baltimore Oriole
Haemorhous mexicanus-House Finch

Mammals

There were 12 species of mammals identified at the Bioblitz. Mammal sampling was done using a variety of methods including camera trapping with lures, pitfall traps, Sherman traps, tree mounted box traps for squirrels, and field observations. There were no real surprises to be had, but overall excellent participation in this area with the help of Wildlife ecologist Jon Cepek, Natural Resource Area Manager Erik Shaffer, and MSU students. Also noteworthy was the presence of Beaver chewed wood debris along the channel of Euclid Creek, presumably washed downstream from an active colony upstream.

Blarina brevicauda-Northern Short Tailed Shrew
Canis latrans-Coyote
Didelphis virginiana-Oppossum
Peromyscus leucopus-white footed mouse
Sylvilagus floridanus-Eastern Cottontail
Odocoileus virginianus-White tailed Deer

Microtus pennsylvanicus-Meadow Vole
Procyon lotor-Raccoon
Sciurus niger-Fox squirrel
Marmota monax-Groundhog
Neovison vison-American Mink

Fungi

Mycologist Walt Sturgeon, a member of the Ohio Mushroom Society and author was able to identify a fair number of Fungi species. 60 species in total were identified. July is generally an excellent time of year for Fungi, but dry weather may have lowered the presence of fruiting bodies. Most of the species were located in the relatively intact oak forest around Euclid Creek, and a few species were found on wood chips imported for the restoration. Interesting species included the Black velvet bolete-*Tylopilus alboater*, Smooth chanterelle-*Cantharellus lateritus*, and the Gilled bolete-*Phylloporus pelletieri*.

Insects

With many pollinator plants in bloom, there was a great diversity of insects to be found. There were 94 species of insects identified from 11 Orders consisting of Isopoda, Orthoptera, Odonata, Trichoptera, Hemiptera, Diptera, Coleoptera, Lepidoptera, Ephemeroptera, Hymenoptera, Mantodea. 8 species of Arachnids were also identified. Insect surveys were conducted by Cleveland Metroparks staff led by Pat Lorch and Stephanie Verish using sweep nets and an audio night survey for crickets and katydids was done by Lisa Rainsong of the Cleveland Institute of Music. CMP volunteer Jim Heflich surveyed and photographed odonates. A team from the University of Akron also joined to survey for the Rusty Patched Bumblebee, which they did not find. They were however able to locate two other *Bombus* species.

Fish & Aquatics

Fish sampling was conducted on the northwest pond using electrofishing methods by Aquatic biologist Mike Durkalec and the aquatics crew. Three fish species were identified, and it is noteworthy that no goldfish were found after successful past removal efforts. Aquatic biologist Claire Weldon sampled Euclid Creek for aquatic macroinvertebrates.

Cyprinus carpio-Common Carp

Lepomis macrochirus-Bluegill

Micropterus salmoides-Largemouth Bass

Plants

Plant surveys were conducted by the PCAP Coordinator Sarah Eysenbach and crew as part of the annual vegetation survey conducted at Acacia. The Invasive Plant Coordinator Jennifer Hillmer and IPM crew also contributed with a roving survey. The Hydrilla crew led by Mark Warman conducted surveys of the various pools to identify aquatic vegetation. Wetland ecologist John Reinier also surveyed for plant species. In total 273 species were identified with 66 plant families represented. 179 species were found that were not documented in the 2013 bioblitz. An interesting and somewhat unexpected find was *Utricularia gibba*-Humped bladderwort, located in a naturalized sand trap.







