



ACTIVITY STATIONS

iNaturalist/ Prairie Adaptations

facilitated by Toledo Zoo Education



GLOBE: Measuring Air, Surface & Soil Temperatures

*facilitated by Dr. Jodi Haney,
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Seed Drops/Prairie Bingo

facilitated by Toledo Zoo Education



BioBlitz BG

BG Parks & Recreation • BGSU • NWO • Toledo Zoo • Xcite Learning

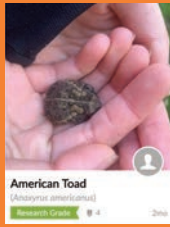
2024

The Northwest Ohio Center of Excellence in STEM Education at Bowling Green State University's College of Education and Human Development, in partnership with the Toledo Zoo and Xcite Learning, held the fourth annual "BioBlitz BG" event on natural habitat prairies for local fourth graders from Bowling Green City schools. Over sixty students from Crim Elementary participated in the event held at Wintergarden Park in Bowling Green in October. Students were paired with BGSU undergraduates who are majoring in Education to explore each activity station.

Part of the intention of this event is for students to reflect on collected data and information to further deepen all learning. The goals for the event were simple: **ENGAGE•LEARN•ACT!**

Activities were designed to engage students in exploration and investigation in nature in order to learn about both living and nonliving components of the local prairie ecosystem and what they and their families can proactively do to maintain its health. Finally, the event hopes to inspire students to take action to help protect and preserve both local prairies and planet Earth.

iNATURALIST



For more information about BioBlitz iNaturalist: <https://tinyurl.com/347hhuuj>

39
OBSERVATIONS

20
SPECIES

24
IDENTIFIERS

22
OBSERVERS

Wintergarden Park
2024 Project Prairie BioBlitz

Using the iNaturalist app, students made 39 recorded observations for Wintergarden Park representing 20 species. 8 observations were classified “Research Grade” which means there is community consensus on a precise identification. Lots of plants were identified along with a few spiders, insects, snails, and slugs.

Though the BioBlitz is officially complete, the iNaturalist community will continue to verify observations. The hope is that more of the observations made during the 2024 Project Prairie BioBlitz will eventually be verified and receive “Research Grade”.

The GLOBE Program: Measuring Air, Surface, & Soil Temperatures



Students collected soil, air, and surface temperature measurements to compare the prairie to nearby places (the prairie’s short grass trail and the woods).

BioBlitz BG 2024 Average Temperatures (°C)			
	Soil	Air	Surface
Prairie	16.3	17.9	11.6
Trail	16.7	17.6	15.0
Woods	16.9	16.2	10.2

Soil temperatures are typically close to one another, as the soil is a great insulator... even still, the prairie soil temperatures were slightly warmer than the trail or the woods. Perhaps the prairie’s soil is more “alive” with microscopic organisms giving off their heat to the environment. The surface temperature of the prairie was significantly cooler than the nearby trail. Tall prairie grasses give off their heat and shade the ground, helping to keep the environment cooler and more ideal for the plant and animal species living there. The prairie surface temperatures taken in full sun were warmer than the shaded forest, however. The prairie air temperatures were warmer than the woods but cooler than on the trail. The prairie plants are living and photosynthesizing, releasing heat back into the air, thus keeping the surface cooler. A cooler surface is needed by the animals and plants residing there.

SEED DROPS



Students got messy and made Seed Drops by combining clay and wildflower seeds rolled into golf-ball sized ‘drops’. These little balls of clay use a planting technique that is actually hundreds of years old. The clay protects the seeds from hungry insects and birds, while the soil provides organic matter and nutrients. When conditions are right (water, temperature, sunlight), the seed drops will break down and the seeds will germinate into flowering plants that will provide habitat and food for our important pollinator friends.

Participants used a Monarch Butterfly attracting (as well as other pollinators) wildflower seed mix, which will result in Monarch Sanctuaries popping up northwest Ohio in the Spring!

Over forty BGSU pre-service undergraduates participated in BioBlitz, assisting the students from Crim Elementary at each station. It was a unique opportunity for the undergraduates to work one-on-one with this age group, exploring hands-on and inquiry-based learning in an outdoor environment. The undergraduates were asked to comment on their experience, and their responses are below.



"I loved getting to know the fourth-grade students and analyzing how they each learned differently and were engaged on different levels."

“
I loved watching the kids, question, explore and wonder. I could see many students' minds jogging when seeing the things that they saw and observed. I also got to feel like a little kid again because I was questioning, exploring and wondering too.

"I loved being able to show the kids different ways of doing science and seeing the excitement on their face when they did the different stations."



"The one thing that I loved is that we were able to see how the kids were learning, what their thought process was as they were thinking about the clouds, the different plants, all the insects and things we were looking at. I also liked that we had members there from the zoo that helped explain facts about the bugs and plants."

"One thing I loved about BioBlitz was spending time with the 4th graders from Crim! It was so fun to see them so excited about science and they were also so excited to work with us. I haven't gotten to work with that age group, so I was really happy to get that opportunity."



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I liked that I became an aid for one of the students. I spent one on one time with a student who has behavioral needs. Working alongside this student I received help and guidance from teachers near us, which helped me understand what strategies I could use to help refocus that student’s attention.”

“I liked how interactive each of the stations were for the students. They were able to get hands on experience with their environment. It was fun to see my two students who claimed to hate bugs and dirt not being afraid to get their hands dirty.”

“I loved getting to work with kids and help them explore nature, as well as get them involved and engaged in science activities.”



Sponsors for the 2024 BioBlitz include the BGSU College of Education and Human Development as well as local community sponsor Lubrizol, along with support from the Bowling Green City Parks, the Toledo Zoo & Aquarium, Xcite Learning, and the Ohio STEM Learning Network of Battelle who made this event possible.

