How does the air temperature affect where the animals live in the school prairie and school lawn?

Team Member Names:
Elise Segovia, Emily Manges, Jocelyn DeLauter

Advisor’s Name: Mrs. Amy Boros, Dr. Jodi Haney
Our Team

Photographer
Jocelyn DeLauter

Experimenter
Emily Manges

Data Recorder
Elise Segovia
Native prairies are important because they are their own ecosystems, and it's not hard to make. Prairies also produce oxygen for us to breathe. They help with global warming also by taking in the carbon dioxide. Additionally, they look super beautiful. Lastly, they are native plants and will help the ecosystems.
Research Question & Hypothesis

RQ: How does the air temperature effect where the animals live in the school prairie and the school lawn?

Hypothesis: If we test the air temperature in the school prairie and school lawn then the animals will be in the place with the highest air temperature because it's hotter.
Variables

- Animal count
- Air Temperature

Images:
- School Lawn
- Sunny Side Of Prairie
- Shady Side Of Prairie
Materials

- Soil Thermometer
- INaturalist App
- Animal tally sheet
Step by Step Procedures:

1. Find a spot in the school lawn
2. Measure the air temperature in °C with the digital prob waist high
3. Wait 5 minutes to observe animals and tally on Bioblitz sheet
4. Go to the most sunny part of the prairie
5. Repeat steps 2 and 3
6. Go to the most shaded part of the prairie
7. Repeat steps 2 and 3
Weather Conditions on the Day of Data Collection

- On 10/6/21 at 9:00 we did our experiment
- It was a cold and windy day
- The clouds covered most of the sky
- The clouds were stratus, opaque, and
- The sky was overcast, milky and very hazy
### Data Table
Air temperature and number of animals in the prairie vs the school lawn

<table>
<thead>
<tr>
<th>Air temperature in the sunny spot of the prairie</th>
<th>Air temperature in the shaded part of the prairie</th>
<th>Air temperature in the school lawn</th>
<th>Number of animals in the sunny part of the prairie</th>
<th>Number of animals in the shaded part of the prairie</th>
<th>Number of animals in the school lawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.0°C</td>
<td>18.9°C</td>
<td>18.2°C</td>
<td>9</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
**Results:** The sunny side of the prairie had the most animals because the air temp was the highest.

**Prairie V.S. school lawn (temp. and numbers of animals comparison)**
Conclusions:

- The hotter the area the more animals.

- The more plants the hotter it was.

- Depending on the air temperature different habitats will change.
Discussion: What does this mean?

This means that the hotter the area the more animals or habitats there are. The hottest area—the sunny side of the prairie—had the most animals. The air temp was 21.0°C, and there were 9 animals recorded, but in the school lawn and the shady prairie had only 2 animals and lower temp. This shows that the suny prairie gives a better habitat to animals—it’s an IDEAL ENVIRONMENT!
Discussion: Possible solutions!

- One way we can have more prairies is by having schools plant prairies.

- We can also have more prairies by putting them in fields that aren't being used currently.
Questions??

Our teacher: Mrs. Amy Boros
5th/6th Grade Science Teacher
Hull Prairie Intermediate School
Perrysburg, Ohio
aboros@perrysburgschools.net