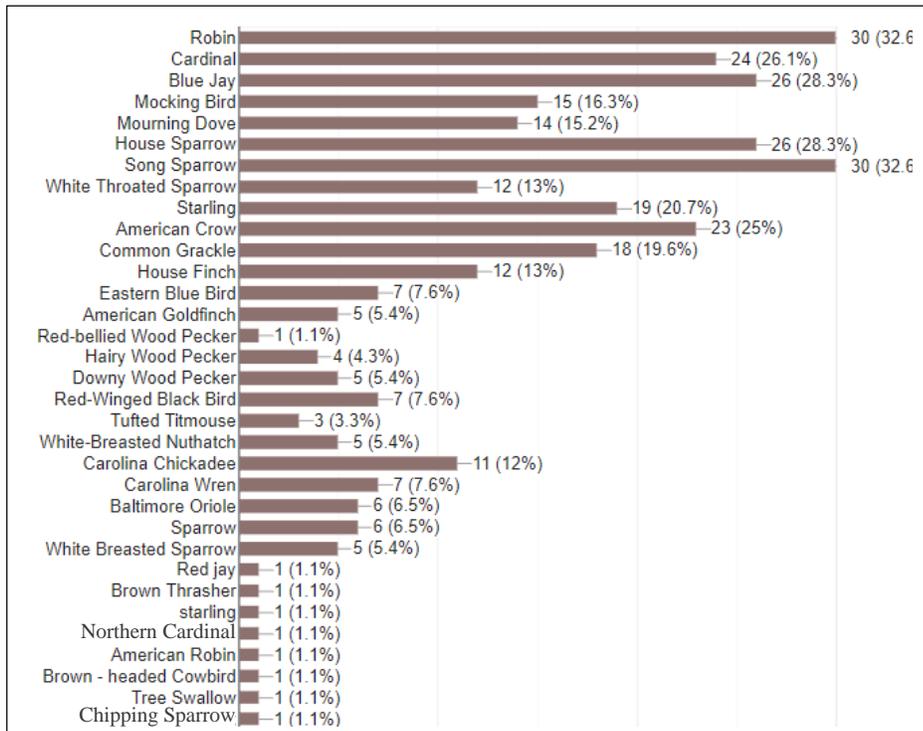


**Howard B. Owens Science Center's
Distance Learning "Students Learning Science by Doing Science"
Ten-Day Birds of the Day: Biodiversity at Home Field Study
Observation Results**

Below are the results of our Ten-Day (6/1/20-6/14/20) Biodiversity Climate Change Bird Study. I am pleased to report that a **variety of birds have been sighted in Prince George's County in all the District cities that reported observations. GREAT JOB EVERYONE!** The data from this study is being shared with members of the Prince George's County Audubon Society. Thank you for your participation.

All District Summary Observation Sightings



Prince George's County Maryland District Map



Figure 1. Listing of all birds sighted from 92, five- minute observations submitted during the ten-day study period.

The Different Kinds of Birds Observed in Each District

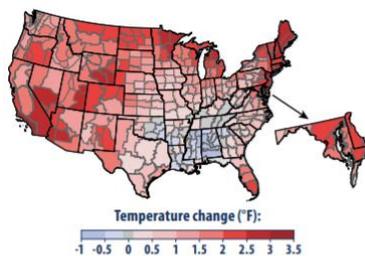
- District 1**
- District 2**
- District 3:**
- District 4**
- District 5**
- District 6**



District 7
District 8
District 9

In a “Biodiversity” study such as this, scientists want to find out how many different kinds of birds can live in Prince George’s County districts. We hope to see lots of different kinds of birds. Birds have temperature range limits in which they can live. If the temperature is too hot or too cold, the birds will try to find a new place to live with temperatures within their survival range.

Maryland’s climate is changing. Our temperatures are getting warmer in all seasons. Having more and more days with temperatures higher than what we expect for each season. Prince George’s temperature has increased by +1.4 degrees Celsius. Extreme heat stresses birds and especially baby birds in a nests. Some ways you can help is to reduce greenhouse gas emissions, provide tree or bird house habitats that provide shade and water bottles for the birds to keep hydrated.



Rising temperatures in the last century. Except for western Maryland, the state has warmed more than most of the nation. Source: EPA, Climate Change Indicators in the United States.



Shutter stock



<https://www.youtube.com/watch?v=g6EitavSRNg>

Another climate issue is a change in our weather patterns. Prince George’s like the rest of Maryland is now having stronger storms and heavier rains especially in the Spring and Summer. These heavy down-pour rains flood and sometimes even wash away bird nests. The rains also keep birds from foraging or eating the amount of food they need. Again you can provide stronger habitats like bird houses and seeds.



<https://jeevoka.com/3-diy-feeders-made-with-things-you-have-around-the-house/s>

The other bird stressor in Maryland is “urbanization” meaning changing the natural land of trees, grass, woods to build things humans want like homes, apartments, restaurants, roads and shopping malls. We also paved roads and made side-walks. All of this takes away bird habitats and feeding grounds. You can help our birds by having trees and grassy areas in your yard. Setting up bird-houses, providing birds seeds in the winter when food is hard to find and bottles of water is great all year. We can help as a county by reserving parks as places for birds to live.

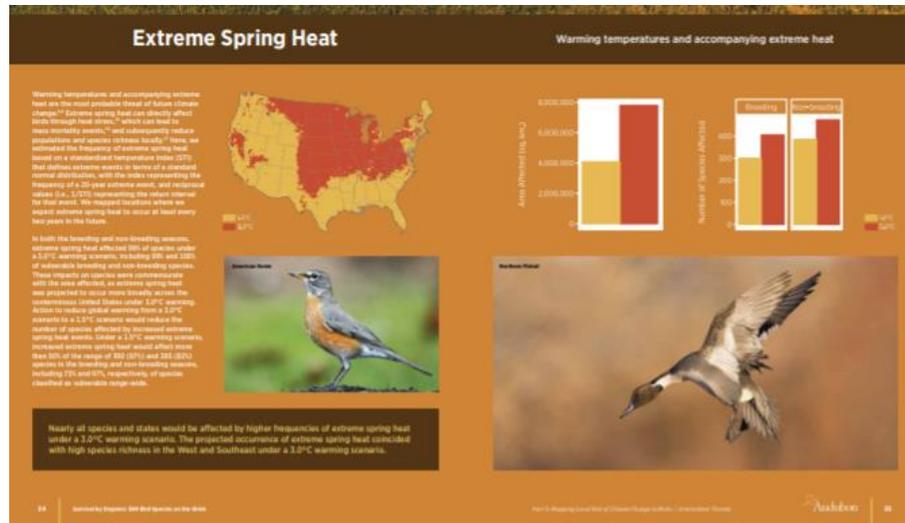


If we want to see more of our State Bird, the Baltimore Oriole, we need to plant their favorite Elm Trees. Many were destroyed by disease.



photo credit: Audubon Society - <https://www.audubon.org/field-guide/bird/baltimore-oriole>

Birds are very sensitive to climate change and changes in the environment. The Audubon Society that protects birds shared the report below with Congress: <https://www.audubon.org/sites/default/files/climatereport-2019-english-lowres.pdf>



The staff of the Howard B. Owens Science Center thanks you again for participating in this year’s **“Birds of the Day: Biodiversity Field Study”** and invite you to be a part of our next local climate change **“Fall Colors”** monitoring study which will begin October 1st to investigate how climate change is affecting the **“Fall Peak Colors”** of our Prince George’s County Deciduous Trees.

Howard B. Owens Science Center
PGCPS Distance Learning – *“Students Learning Science by Doing Science”*

“Fall Color Changes: Deciduous Tree Leaf Student Monitoring at Home Field Study”
October 1st – November 1st, 2020

As the climate changes in Maryland, so does the “peak” of Fall Deciduous tree leaf color changes which is dependent on sunlight, temperature and soil moisture. The staff of the Howard B. Owens Science Center invite all students in any grade level to participate in our **“Fall Color Changes: Deciduous Tree Leaf Monitoring at Home Field Study”** to help find out how fast the Deciduous Tree leaves are changing color in Prince George’s County.