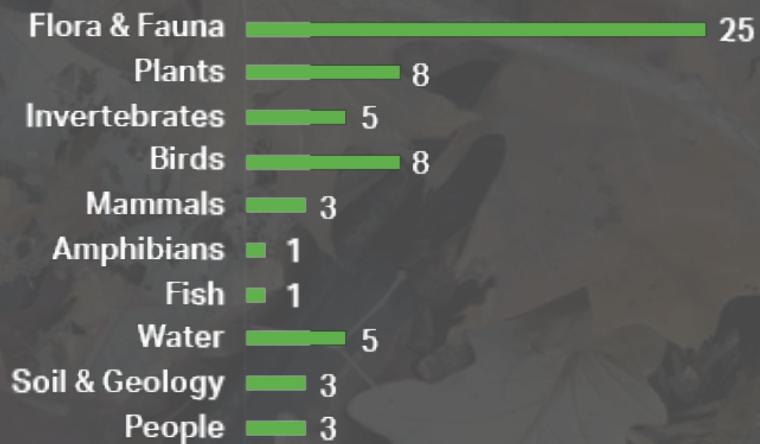


# Science in the Parks: 2020 Research Report



Scientific research and monitoring occurs all year round at the Chicago Park District (CPD), with subjects ranging from human health to invasive species, soil chemistry, plant ecology, and the diversity of crayfish in urban ponds. Studies are conducted by researchers at universities, local organizations, Chicago Park District staff, and community scientists. In 2020, there were 31 active studies, with several highlighted here.

Researchers obtain permission to conduct research at the parks through CPD's Research Permit system. Apply at [www.chicagoparkdistrict.com](http://www.chicagoparkdistrict.com)



## 2020 studies by subject(s) of interest

31

active studies in 2020



Illinois Natural History Survey botanist Greg Spyreas conducting plant surveys at Montrose Beach Dunes



(square plots above)

**Alifa Saify, Northwestern University and Lauren Umek, Chicago Park District** are studying the effects of different soil amendments to promote native plant establishment in areas that have been capped to remediate environmental contaminants. The results of the study will guide ecological restoration throughout the parks. Aerial photography by Kendall Anderson, Chicago Park District.

The Urban Coyote Research Project was initiated in 2000 as a

Chicago's historic lagoons are some of the most frequently visited waterbodies in the region. **Carter Cranberg, Eve Hemingway, and Reuben Keller** of Loyola University, are studying how crayfish and aquatic plants are distributed throughout ponds and lakes in northeastern Illinois and how this relates to human activities.

The spread of the non-native invasive species rusty crayfish (*Orconectes rusticus*) and red swamp crayfish (*Procambarus clarkii*) are of particular interest. Pictured, top left, is a native virile crayfish, *Orconectes virilis*, found at the pond at West Ridge Natural Area.

non-biased attempt to address the shortcomings of urban coyote ecology information and management in the Chicago metropolitan area. Over 1,283 coyotes have been tagged as part of this project, 60 of which were within the Chicago city limits. **National Geographic photographer Corey Arnold** deployed remote camera equipment to take high quality photos of coyotes in urban habitats, to be featured in the magazine in 2021.

Virginia rail (*Rallus limicola*)

The **Calumet Marsh Bird Survey** is an ongoing investigation of marsh bird diversity, abundance, and habitat quality in the Calumet region of northeastern Illinois and northern Indiana. Since 2015, **Audubon Great Lakes**, partner organizations, and community scientists have conducted standardized bird surveys, including at CPD's Big Marsh, Indian Ridge Marsh, Marian R. Byrnes Park, and Whitford Pond. The park district's ecological restoration and management support habitat for these imperiled birds.



**1,224** community scientists

**21,855** observations

**1,302** species (research grade)

on iNaturalist in Chicago Parks, Nov. 2019 to Nov. 2020

In 2015, the Center for Decision Research (CDR) at the University of Chicago began a partnership with the park district to bring behavioral science research to a broader audience. In just a few short years, tens of thousands of



**Kimberly Fake** of the Lincoln Park Zoo's **Urban Wildlife Institute (UWI)** is studying **urban stressors on birds** in Chicagoland urban habitats. UWI researchers are measuring oxidative stress, an imbalance of pro-oxidants and antioxidants that plays an important role in aging, disease, reproduction, and survival.

The study aims to provide guidance to future urban development to minimize negative impacts to the health of urban birds.

visitors to Chicago's parks have participated in CDR studies. The research conducted through this partnership contributes to advancing behavioral science research and scholarship.

Researchers at the Center for Decision Research also collect information about park visitors, providing illuminating information about the **demographics and experiences of people in the parks**. The CDR is excited to continue conducting research in collaboration with the Chicago Park District in order to produce robust data that serve the missions of both partners.



Orchard oriole (*Icterus spurius*)  
by Alaina Harkness in Washington Park

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For more information about your Chicago Park District:  
visit [www.ChicagoParkDistrict.com](http://www.ChicagoParkDistrict.com) or call 312.742.7529 or 312.747.2001 (TTY)

