

Natural Ecosystem Survey Technologies (NEST) Research Project

About the Study

How can remote sensing tools like drones, satellites, and eDNA be used to monitor Conservation Reserve Program (CRP) lands?

A new U.S. Department of Agriculture research study led by the University of Illinois Chicago, University of Illinois Urbana-Champaign, Southern Illinois University of Edwardsville, and the Electric Power Research Institute will evaluate new technologies and methods for monitoring habitat quality at a large scale.

Research Description

The project team will perform vegetation monitoring at 30 habitat sites across central Illinois using eDNA, satellite imagery, drone monitoring, ground photography, and

conventional pollinator surveys to qualify habitat quality and compare survey technologies. Information gained will improve tool usage for remote monitoring across large landscapes.

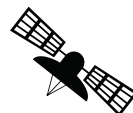
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Field Demonstration: Summer 2026!

An on-site field demonstration will be hosted to show how drones, eDNA, and field surveys can be used to qualify habitat. Attendees will receive hands-on experience and learn more about resources available. Stay tuned for more information!

Survey Technologies



Satellite Imagery



Drone Monitoring



eDNA Sequencing



Ground photography



Conventional on-site surveys

Project Deliverables



Geodatabase and toolkit for tracking and evaluating habitat



Guidance and resources for landowners and USDA

Questions?

Please contact Caroline Hernandez (cah272@uic.edu).

Learn more on our webpage!



rightofway.erc.uic.edu/nest/