



# GRASSLAND BIODIVERSITY SURVEYS

## Landowner Orientation

### VIRGINIA'S GRASSLANDS

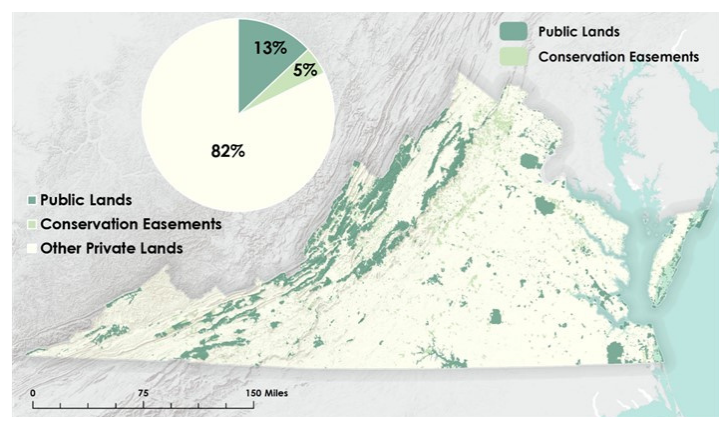
Virginia's grasslands are host to some of North America's most vulnerable species, including native wildflowers and grasses, pollinating insects, and resident and migratory birds. But farmlands and associated grasslands in Virginia have been disappearing over the last 50 years. As these habitats become fragmented, developed, and intensified with agricultural use, much of the biodiversity that supports our community's physical, environmental, and economic welfare is lost.

## GRASSLAND BIODIVERSITY SURVEYS

**Virginia Working Landscapes (VWL)** is a program of the Smithsonian's National Zoo and Conservation Biology Institute. Since 2010, VWL has conducted biodiversity surveys on over 250 properties across 16 counties in Virginia's northern Piedmont and Shenandoah Valley. The information we learn from these surveys provides vital insights into what species are here and thriving, and which ones are not. They also allow us to examine the impacts of land-use practices on those species and their habitats.

## WE NEED YOU!

**More than 90%** of Virginia's landscape is privately owned, making landowners the main stewards of our remaining biodiversity. Each year, VWL recruits new landowners whose properties serve as sites for our biodiversity surveys. By joining the VWL landowner network, you will help us advance grassland research and help inform conservation practices across the region.



## HOW IT WORKS



### Scientists and landowners meet to assess properties for surveys.

The VWL team works with you to understand the specifics of your property, determine the landscape's suitability for surveys, establish locations, and explain survey protocols.



### The VWL team surveys plants, soil, & wildlife on properties.

VWL staff and a team of Smithsonian scientists, graduate students, interns, and trained community volunteers survey a range of bird and plant species and collect soil samples. These data provide our team with a snapshot of the biodiversity on your property.



### VWL provides each landowner with a final survey report.

At the end of each season, we share a summary report of the species observed during the surveys. This is an exciting opportunity for you to have an inventory of the grassland plant and bird communities found on your property.



### Data supports conservation and land management decisions to better serve grasslands and you.

We use data from all participating farms to inform long-term studies on the relationships between land management and native biodiversity, and to help guide conservation planning with community partners.





# BIODIVERSITY SURVEY METHODS



Smithsonian  
National Zoological Park  
Conservation Biology Institute

Interested in reading about some of the latest findings in conservation science, land management tips, and updates from our VWL team? Email us at [viriniaworkinglandscapes@si.edu](mailto:viriniaworkinglandscapes@si.edu) to subscribe to our monthly newsletter!



## Bird Surveys



## Plant Surveys



## Soil Surveys

Survey Goal	Bird Surveys	Plant Surveys	Soil Surveys
<b>Survey Goal</b>	Quantifies grassland bird diversity and abundance in fields during the breeding season	Measures plant species composition, vegetation cover, and structure throughout the growing season	Assesses soil health by determining relative acidity and nutrient content
<b>Timeline</b>	May 15-June 30	June-August	May-August
<b>What We Do</b>	Conduct "point counts" by recording every bird seen or heard within 100 meters of a survey site over a 10-minute period. Point counts are conducted three times throughout the breeding season.	Document plant species, structure, and cover in 7-21 sampling quadrats along pre-set transects. Surveys are conducted twice during the growing season.	Collect and combine eight soil cores at each survey point to gain an average measure of soil characteristics at each site.
<b>What to Expect</b>	We visit your property three times during the survey period, arriving within three hours of sunrise and spending 45-60 minutes on point counts.	We visit your property twice, once in the spring (June) and once in the summer (August), spending 6-8 hours on site each visit.	We sample at the same sites where grassland plant and breeding bird surveys are conducted.
<b>How to Prepare</b>	Please refrain from haying, bush-hogging, or heavily grazing your field during the survey period. If these activities are necessary during the survey period, please coordinate timing with our team.	Please refrain from haying, bush-hogging, or heavily grazing your field during the survey period. If these activities are necessary during the survey period, please coordinate timing with our team.	No specific preparations are needed for soil surveys, but our team is happy to answer any questions you may have for this survey method.

## THINGS TO NOTE

- Surveys generally require 20-30+ acres of grassland habitat on the property. Surveyed fields can be under any form of management (i.e. grazed, hayfields, pollinator meadows, fallow fields).
- Due to the nature of sampling methods, the species reported in the landowner survey report do not necessarily reflect all species on a property. Our team is happy to discuss survey results with you.
- Biodiversity surveys are just one of the many ways to be involved in VWL as a landowner! If we cannot perform surveys on your property due to capacity limits, our team will connect you with other opportunities.

## Learn More

Visit our website at [vaworkinglandscapes.org](http://vaworkinglandscapes.org) or find us on social media:



Virginia Working Landscapes



smithsonian\_vwl

For more information about our surveys and how to join the VWL landowner network, please contact our Survey Coordinator, Erin Shibley: [ShibleyE@si.edu](mailto:ShibleyE@si.edu)

