



Smithsonian
National Zoological Park
Conservation Biology Institute



Piedmont
Environmental
Council



Best Management Practices for Grassland Birds

Virginia Grassland Bird Initiative



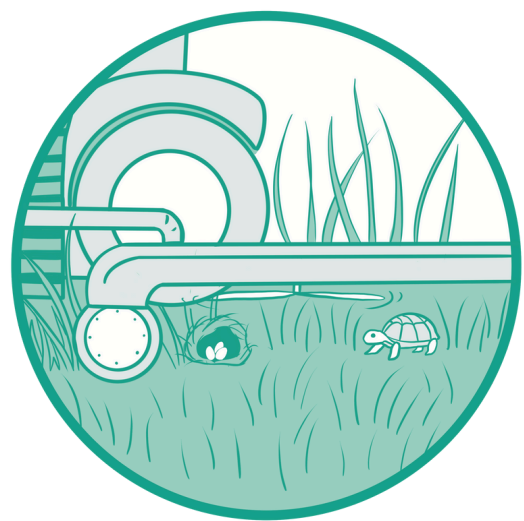
Delay your first cutting of hay

Local research has shown that delaying the first spring cutting of hay on select fields until July 1 allows more than 80% of nesting grassland birds to be successful. Higher fiber, more mature hay is suitable for feeding dry cows, horses, and retired animals, as well as for mushroom hay and bedding.



Summer pasture stockpiling

Local research has also shown that stockpiling forage in the Spring to be grazed in the late Summer provides critical nesting habitat for grassland birds. Stockpiling bridges the summer dormancy gap by providing standing forage in late summer without the risk and cost of planting summer annuals.



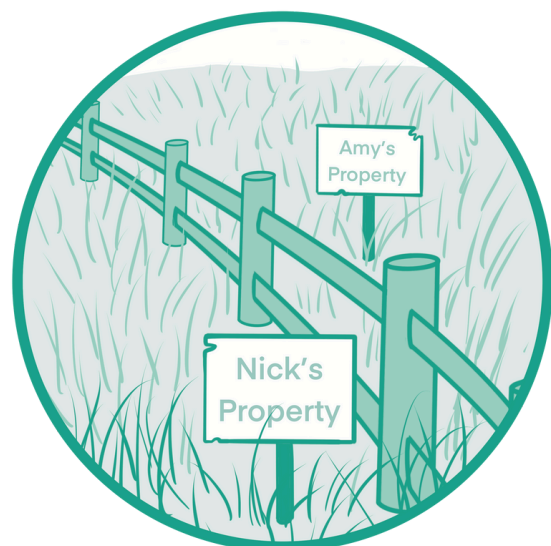
Raise your blades

Raise machinery cutting blades to 8 inches, or as high as possible, when cutting/clipping fields to avoid destroying grassland bird nests and injuring turtles. This practice is best implemented when clipping livestock pastures or bush-hogging fields to maintain grassland habitat.



Plant native warm season grasses (NWSGs) & wildflowers

NWSGs can be used for livestock forage, hay, or as a field buffer or riparian buffer. These grasses are deep-rooted, resulting in higher drought resistance, carbon sequestered deeper into the ground, and more organic material added into the soil. Native wildflowers should be integrated into any available habitats, including working fields, buffers, riparian areas, etc. to provide critical resources for pollinators wherever possible.



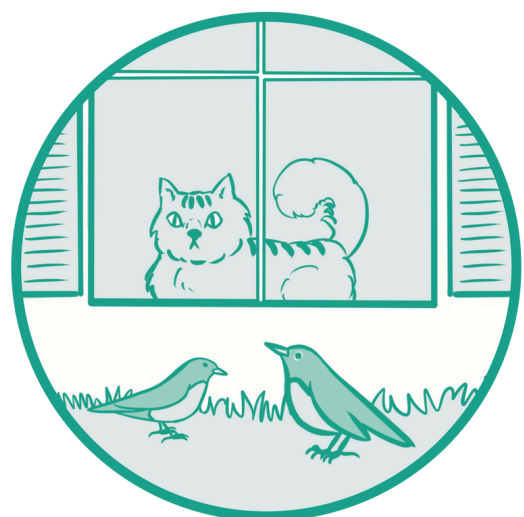
Work with neighbors on shared management

Some of the biggest conservation impact comes from working with neighbors to align management practices across property lines. Cooperative management builds larger tracts of functional habitat, while fostering a greater sense of local community pride and stewardship.



Remove non-native species

Invasive (non-native) species outcompete our native plants, removing critical food resources and habitat from our landscapes. Combatting non-natives can include mechanical and chemical removal, and using more aggressive native plants to overtake the non-natives.



Keep all cats indoors

Free-roaming cats are one of the most significant threats to wildlife, killing millions of birds in the United States every year. This is easily preventable – no cat should freely roam the landscape. This includes house cats and barn cats.



Add a flushing bar

Flushing bars (a horizontal bar with dangling chains) can be added to tractors if you hay/mow/clip during the nesting season to reduce adult and juvenile grassland bird mortality.



Set aside unmowed areas adjacent to mowed areas

This practice allows for grassland birds, pollinators, and other grassland wildlife to still have habitat available when mowing needs to occur.



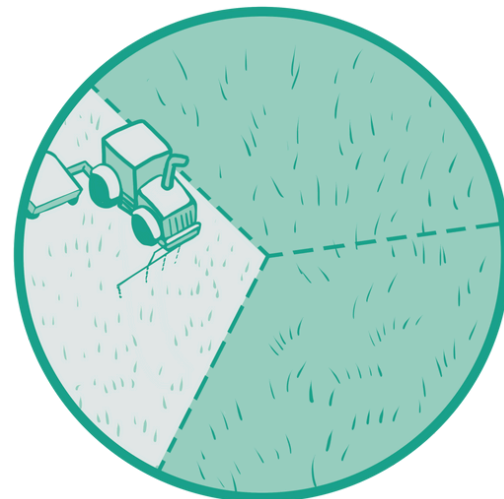
Provide overwintering habitat

We often focus on providing quality habitat during the nesting season, but winter is an equally important time to provide habitat and food. Time any Fall cuttings to allow for some plant regrowth before the dormant winter season sets in. Plant trees and shrubs that produce nuts, berries, and seeds later in the season that can provide food during the colder months.



Avoid mowing at night

Wildlife using your fields is less capable of responding to disturbances at night, resulting in higher mortality. It's best to manage fields (mowing, clipping, burning, etc.) during daylight hours.



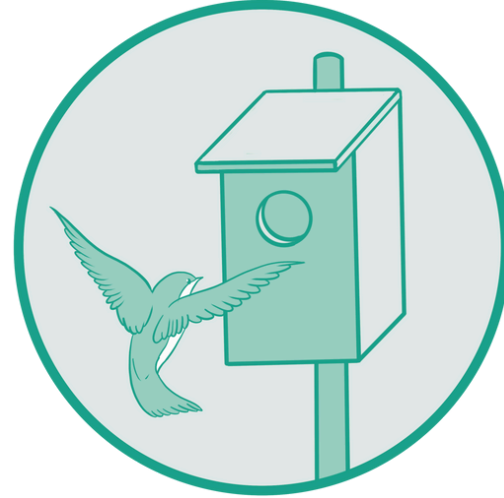
Manage fields in patches

Cutting/clipping/mowing/burning only sections of a field at a time simulates a more natural "disturbance," creating wanted heterogeneity in plant structure while always leaving some available habitat on the landscape.



Prescribed fire

While once a natural, widespread, and necessary disturbance, small-scale fires on our landscapes have been largely suppressed, which has reduced the diversity of our plant communities. Prescribed (i.e., controlled) fires are an excellent management tool for restoring the health of our grassland and meadow ecosystems.



Install nest-boxes

Artificial nest-boxes can be added to your landscape to create safe nesting opportunities for dozens of cavity-nesting species. Simultaneously, leave dead trees (snags) standing whenever they don't pose a safety risk. Woodpeckers are attracted to these snags, where they create cavities for other birds to use.



Upgrade all outdoor lighting to be Dark Sky compliant

All outdoor lighting, whether around the home, barn, or roadside, should be down-shielded. Doing so preserves the darkness of our night skies, a benefit to everyone from stargazers to migrating birds. For additional impact, switch "white" lights out for amber lights.



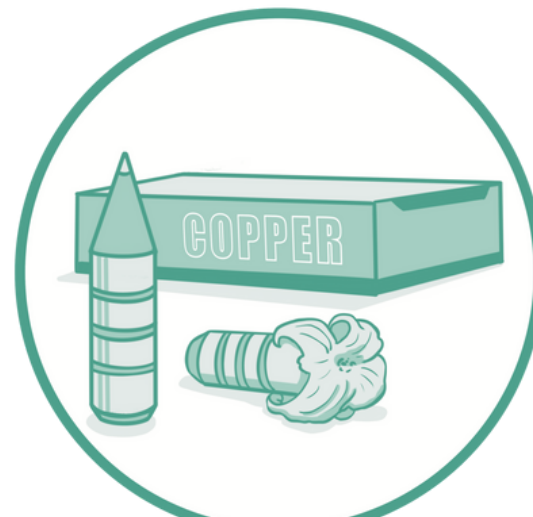
Eliminate the use of pesticides, including insecticides & rodenticides

Pesticides rarely target a single species without causing wider-spread damage. Since birds rely heavily on insects for their diet, especially when raising young, poisoning insects negatively impacts birds. Bait blocks (poisons targeting mice and rats) should never be used – not in or around your home, or outside around a barn.



Stream exclusion and buffer plantings

Removing livestock from a waterway and subsequently installing exclusion fencing and water troughs at key locations results in healthier livestock, more capacity for rotational grazing, and the opportunity to buffer that waterway with native grasses, shrubs, and trees.



Transition to non-lead ammunition

Lead ammunition often fragments/shatters inside of a carcass and is toxic to both humans and wildlife, setting the stage for unknowing consumption and poisoning. Non-lead ammunition (copper and copper alloys) is now readily available and as effective as or more effective than lead bullets.



Edge and shrub habitat

Many wildlife species benefit from having structure within a field and along field edges. Shrubby "islands" within fields offer cover, vegetated fence rows act as movement corridors, and edge feathering (i.e., hinge cuts) on forest edges creates a transitional habitat between field and forest. These can be achieved by planting native flowering shrubs, and/or reducing management in areas to allow native plants to grow and establish.



Volunteer as a community scientist

Volunteering with a local conservation organization is an excellent way to engage with nature in new ways, contribute to local research and outreach efforts, make new friends, share your own knowledge and skill sets, and help promote good land and water stewardship practices throughout your community.



This resource provides a brief introduction to important BMPs. To learn more about these practices and grassland birds, **scan this code or visit www.vagrasslandbirds.org**

The Virginia Grassland Bird Initiative—a partnership between Smithsonian's Virginia Working Landscapes, The Piedmont Environmental Council, American Farmland Trust, and Quail Forever—is innovating new ways to reverse the declines of grassland birds on working lands in the Virginia Piedmont, Blue Ridge, and Shenandoah Valley. Together, VGBI partners work with landowners and producers in 16 counties to restore grassland habitat for the benefit of birds, farms, and farmers.