

Forest Management for Wildlife Habitat: **Prescribed Fire**

A *prescribed fire* is an intentional, controlled burning of a well-defined area. The practice may be used to achieve one or more management objectives. Common objectives include undesirable species control, pest reduction, disturbance-dependent ecosystem maintenance, wildfire risk reduction, nutrient cycling, and increased wildlife forage. This informational sheet will focus on the benefits of prescribed fire to wildlife.

Special Considerations

Long before a prescribed burn is scheduled, land managers consider many factors. Burns are typically conducted in either the early spring or late fall, depending on management objectives. The amount and type of *fuels* present in the *burn unit* (i.e., leaf litter and low vegetation in a well-defined area) determines whether the fire will carry and how intensely it may burn. The *burn window* is an approximate set of dates during which land managers plan to conduct a burn. The final consideration when planning a prescribed fire is weather conditions; minute to minute changes in the weather can create go or no-go conditions, so it is important to plan for a span of days. This ensures that a team's resources are available when the time is right. The *burn boss*, or team leader, continues to monitor the weather throughout the burn.



A trained professional puts fire on the ground using a drip torch. Personal protective equipment (PPE) is always worn for safety while on a burn. Basic PPE for prescribed fire includes flame-resistant clothing, leather boots and gloves, hard hat, and radio.

Wildlife Benefits

In Maryland, the practice of prescribed burning is best applied to pine barrens, mixed oak-pine forests, inland sand dunes, shrublands, grasslands, and marshes. The plant species native to these habitats are often *fire-dependent* or *fire-adapted*; for example, a plant's seeds may need fire to start the germination process.

In the years following a prescribed burn, the diversity and abundance of *forage* — flowering herbaceous plants, grasses, fruiting shrubs, legumes, young trees — provides food for many kinds of wildlife. Regrowth after a fire often leaves small patches of open ground, space under shrubs, and bundles of grass; these habitat elements provide travel routes and shelter for small mammals, ground nesting birds, and reptiles.

Scale

A burn unit can range anywhere from just a few acres to hundreds. Here in Maryland, the average prescribed burn covers 30 acres (2023). In most cases, a prescribed burn only affects a small portion of a particular habitat. Therefore, critters have somewhere to escape to during the burn and somewhere to live while the landscape quickly recovers.



April 23, 2024: This photo was taken the same day as the prescribed burn, while team members monitored the site.



June 21, 2024: After just two months, some color has returned to the forest; new growth is present.



April 24, 2025: Burn scars at the bases of the trees indicate a past fire. These trees are fire-adapted; only the outer layer of bark was affected by the controlled burn.

Spotlight On: Northern Bobwhite Quail

Nicknamed the ‘fire bird,’ the northern bobwhite quail (*Colinus virginianus*) responds positively to habitat restoration efforts that focus on prescribed burning. Once abundant on the Eastern Shore of Maryland, these quail are now mainly found in specially managed areas.

Visit our Demonstration Network site at Nanticoke River Wildlife Management Area in Wicomico County to learn more.



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To learn more about how forest management can benefit wildlife habitat, refer to the Links & Resources tab on our home page.

<https://dnr.maryland.gov/forests/Pages/default.aspx>