

Guide for true-and-false assessment.

1. *Fires kill all of the wildlife in a wetland.* False. Though some wildlife may be harmed in wildfires that burn extremely hot and move quickly, most wildlife escape the negative impacts of prescribed fire when implemented correctly and in an appropriate frequency. These animals have adapted to fire patterns that were historically dominated by slow-moving, low-intensity fires that resulted because of short frequency returns and lower fuel loads. Most effects on animal life are indirect, such as changing cover and food sources.
2. *Some plants have adapted to survive and thrive with fire.* True. Wiregrass is a dominant component of both wetland and upland communities in the south and evidence shows that viable seed is usually produced only after a growing season fire. Similarly, longleaf pine is the historically dominant pine tree in the south. This species has specific characteristics that help it survive fire both as a juvenile and a mature tree and, as a result, provide a competitive edge over less tolerant trees such as slash pine.
3. *Prior to the settlement of North America, lightning caused most of the fires.* True. Although the impact of indigenous Native Americans on the landscape is becoming increasingly accepted as a component of southern natural communities, lightning-ignited fire is assumed to have played the dominant role.
4. *High-intensity fires are always ecologically destructive and bad.* False. Though those wildfires that occur now are often destructive and harmful to both wildlife and property, some prescribed burns for management utilize high-intensity fires to “reset” the community after many years of fire suppression. These high-intensity fires in wetlands serve not only to remove the canopy and increase sunlight to the groundcover, but can even “root kill” hardwoods and allow recolonization by grasses and forbs. Sometimes accumulated organic matter is oxidized, reducing the elevation of the community and effectively increasing water depth in wetlands. Such effects are generally only possible with high-intensity fires. Of course, as our society understands or deals with fire in natural communities, it often takes on the characterization of being destructive because of excessive fuels that have accumulated in years without fire and the proximity of man’s infrastructure to those natural communities.
5. *When fires occur regularly, the heat sterilizes the soil and kills most of the plants.* False. In communities where fire occurs on historic frequency levels, fire consumes aboveground material, but does little to impact the roots. After fires, soil fertility and plant growth are generally substantially enhanced.
6. *Some wetlands historically burned as often as every one to three years.* True. Grass-dominated wetlands of the southeast, often referred to as prairie wetlands, owe their structure and sparse canopy to frequently occurring fires. In prairie

wetland restoration projects, it is common for management agencies to target fire-return intervals of three or fewer years.

7. *Many of our wetlands are less healthy because of reduced amounts of fire.* True. As the natural landscape becomes increasingly fragmented by roads and development, the ability for naturally ignited fire to burn with any frequency has been virtually eliminated. Without frequent fire, the species composition changes from grasses and forbs to shrubs and trees. Wetlands that were historically driven in composition by frequent fires are some of the most endangered natural communities in the southeast.
8. *Fires can increase the diversity of the vegetative landscape and foster a mosaic of habitats.* True. Some of the most diverse natural communities in the southeast are those in which frequent fire—generally every one to seven years—has been a constant component. A trip through a wet prairie in the spring can change week by week with respect to species that are visible, with many species only evident for the short time they are flowering.
9. *Ecological communities always succeed from grasses to shrubs to trees.* False. This is at the heart of misconceptions in succession. This pattern of succession is only possible when external disturbances are removed from the system. Fire and storm events are two significant disturbances that continually “reset” this assumed succession pattern.
10. *Fire recycles nutrients.* True. Although one assumes that only the consumption of resources occurs during a fire, nutrients and minerals that were contained within the plant material are released and become more readily available for new growth.