

## Forest Management for Wildlife Habitat: Landscape Mosaic

In natural resources management, the term *mosaic* refers to a landscape that has a mixture of different habitat types. Each habitat type provides food and shelter in different ways to the wildlife that depend on it. Some kinds of wildlife need more than one habitat type throughout their lifecycle. Common habitat types in Maryland are forest, grassland, and wetland. Notable types are shale barren and cypress swamp.



*In art, a mosaic is an image created by arranging small colored tiles.*



*In natural resources management, a mosaic is a landscape created by cultivating or enhancing sections of different habitat types.*

### Fluctuations in the Mosaic

A *habitat* is an area that meets the needs of an organism. An *ecosystem* is the interactions between organisms in an area; for example, the food web in your yard. An ecosystem also includes the non-living things in an area, like soil. Ecosystems naturally change over time. As an ecosystem changes, the type of habitat that it provides also changes. This process is known as *succession*. Changes in composition (i.e., types of species present) and structure (e.g., height, density) are the main indicators of succession.

- \* Consider a meadow habitat composed of grasses and small shrubs, with a low, dense structure. A squirrel hides acorns in the ground, found in a nearby forest. The acorns sprout and then grow bigger, creating shade. The vegetation on the ground changes from grasses and shrubs to ferns and vines. The structure is now tall, with a low, sparse understory. The habitat is now a forest.

### Maintaining Balance

Without disturbance, much of Maryland's land would return to mature forest. Mature forest is an essential part of the landscape mosaic, as it supports forest interior dwelling species as well as species that move

## Maintaining Balance, cont.

between young and old habitats. Careful use of tools like prescribed fire and timber harvesting help land managers maintain a balance of habitat types on the landscape. Balance is key to supporting resilient, biodiverse ecosystems. When planning new restoration projects, land managers often ask two important questions: what type of habitat is missing on the landscape, and what type of habitat can this land support?

### Spotlight On: *The Landscape as a Living Mosaic*

Habitat fragmentation is a major stressor to wildlife. Fragmentation causes holes in the mosaic — places that provide few biological benefits to wildlife. Hubs like Tuckahoe State Park, where there are large tracts of protected land, are a great opportunity to build quality wildlife habitat.

Visit our Demonstration Network site at Tuckahoe State Park in Caroline County to learn more.



### Forest Management for Wildlife Habitat

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>