

Barrens, Woodlands and Glades

Take a trip to your local forest, and you likely will see just that: a forest. People who restore and study these areas, though, see a mosaic of different natural community types.

Southern Illinois forests are composed of glades, barrens, open oak woodlands, closed oak woodlands, upland forests, bottomland forests, swamps and more. The differences between each community type are subtle – and can seem academic to the average forest lover. For example, in a closed oak woodland, the tree canopy covers between 50 and 80 percent of the sky, while an open oak woodland canopy spans between 20 and 50 percent. Where you find a specific community depends largely on the underlying geology, the kind of soil, topography of the land, the amount of moisture present and disturbance history.

Without fire, Illinois' oak dominated natural communities — barrens, woodlands and forests — are becoming denser, with shade-loving trees increasing most in numbers. Once these trees get a foothold, they make the forest moister and cooler, essentially changing the climate of the forest. Leaves and wood on the forest floor begin retaining more moisture, which further limits fire on the landscape. Over time, a self-perpetuating cycle is created where these shade-loving trees gradually change the forest to suit them — not oaks, the keystone species in Southern Illinois forests, or the other plants that thrived in this fire-dependent environment. Academics coined a term for this cycle — mesophication, which they are seeing in many eastern U.S. forests.



Eastern box turtle and pipevine swallowtail © Chris Benda