

Section 4. Terrestrial Habitats

Components of Reports	1226
Definition ranking	
Key factors	
Indicators of condition	
Conservation actions	
Monitoring	
Terrestrial Habitat Reports	1231
Caves, Mines, Sinkholes, and other Karst Features	
Crop Land	
Crowley's Ridge Loess Slope Forest	
Cultivated Forest	
Herbaceous Wetland	
Interior Highlands Calcareous Glade and Barrens	
Interior Highlands Dry Acidic Glade and Barrens	
Lower Mississippi Alluvial Plain Grand Prairie	
Lower Mississippi Flatwoods Woodland and Forest	
Lower Mississippi River Bottomland Depression	
Lower Mississippi River Dune, Pond, Woodland and Forest	
Lower Mississippi River High Bottomland Forest	
Lower Mississippi River Low Bottomland Forest	
Lower Mississippi River Riparian Forest	
Mud Flats	
Ouachita Montane Oak Forest	
Ozark-Ouachita Cliff and Talus	
Ozark-Ouachita Dry Oak and Pine Woodland	
Ozark-Ouachita Dry-Mesic Oak Forest	
Ozark-Ouachita Forested Seep	
Ozark-Ouachita Large Floodplain	
Ozark-Ouachita Mesic Hardwood Forest	
Ozark-Ouachita Pine/Bluestem Woodland	
Ozark-Ouachita Pine-Oak Forest/ Woodland	
Ozark-Ouachita Riparian	
Ozark-Ouachita Prairie and Woodland	
Pasture Land	
Ponds, Lakes, and Water Holes	
Urban/Suburban	
West Gulf Coastal Plain Calcareous Prairie and Woodland	
West Gulf Coastal Plain Large River Floodplain Forest	

West Gulf Coastal Plain Pine-Hardwood Flatwoods
West Gulf Coastal Plain Pine-Hardwood Forest/Woodland
West Gulf Coastal Plain Red River Floodplain Forest
West Gulf Coastal Plain Sandhill Oak and Shortleaf
Pine Forest/ Woodland
West Gulf Coastal Plain Seepage Swamp and Baygall
West Gulf Coastal Plain Small Stream/River Forest
West Gulf Coastal Plain Wet Hardwood Flatwoods

Components of Terrestrial Habitat Reports

Definition

The terrestrial habitat team described the terrestrial habitats of Arkansas in 38 types in Table 4.1. Thirty of 37 terrestrial habitat types in Arkansas were adapted from definitions provided by NatureServe (2005). The remaining seven habitat types (marked with an asterisk) were created for this project by the terrestrial habitat team.

Ranking

The Habitat Score (Table 4.1) of each terrestrial habitat is a sum of all Species Priority Scores associated with species for which this habitat is associated. A higher score implies a higher quantity of Species of Greatest Conservation Need (SGCN) and/or more greatly imperiled species occurred in the habitats listed below.

Table 4.1. Terrestrial Habitat Scores.

Habitat Name	Sum of Species Priority Scores
Caves, Mines, Sinkholes and other Karst Features	6906
Ozark-Ouachita Prairie and Woodland	3571
Ozark-Ouachita Riparian	3500
Ozark-Ouachita Mesic Hardwood Forest	2635
Ozark-Ouachita Dry Oak and Pine Woodland	2344
Pasture Land	1709
West Gulf Coastal Plain Calcareous Prairie and Woodland	1672
Ozark-Ouachita Pine-Oak Forest/Woodland	1590
Ozark-Ouachita Large Floodplain	1536
Ozark-Ouachita Cliff and Talus	1526
Lower Mississippi Alluvial Plain Grand Prairie	1507
West Gulf Coastal Plain Large River Floodplain Forest	1213
West Gulf Coastal Plain Small Stream/River Forest	1170
Lower Mississippi River High Bottomland Forest	1143
Lower Mississippi River Riparian Forest	1138
Ponds, Lakes, and Water Holes	1089
Ozark-Ouachita Forested Seep	1055
Lower Mississippi Flatwoods Woodland and Forest	1053
Ozark-Ouachita Dry-Mesic Oak Forest/Woodland	1040
Lower Mississippi River Low Bottomland Forest	1034
West Gulf Coastal Plain Red River Floodplain Forest	926
Crop Land	871
Ozark-Ouachita Pine-Bluestem Woodland	827
Interior Highlands Dry Acidic Glade and Barrens	813

Mud Flats	754
West Gulf Coastal Plain Pine-Hardwood Flatwoods	702
Herbaceous Wetland	700
Interior Highlands Calcareous Glade and Barrens	644
West Gulf Coastal Plain Seepage Swamp and Baygall	642
Ouachita Montane Oak Forest	613
Crowley's Ridge Loess Slope Forest	605
Lower Mississippi River Bottomland Depression	564
West Gulf Coastal Plain Pine-Hardwood Forest/Woodland	528
West Gulf Coastal Plain Wet Hardwood Flatwoods	450
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine	421
Urban/Suburban	399
Cultivated Forest	262
Lower Mississippi River Dune Woodland, Pond, and Forest	229

Key Factors

Each terrestrial habitat type is assigned “Key Factors” which describe those conditions most critical for maintaining the ecological function and viability of associated species. Key Factors (table 4.2) are ecological attributes deemed critical to the long-term integrity of a given habitat. The terrestrial habitat team determined the importance (weight) of the Key Factor to the overall habitat integrity.

Table 4.2. Key Factors.

Fire Regime
No-Activity Protection Zone
Canopy Closure
Composition
Percent Total Herbaceous Ground Coverage
Cave/Mine Accessibility
Disturbance Policy
Spatial Ecology
Remoteness
Recharge Area

Indicators of Terrestrial Habitat Condition

One or more measurable “Indicators” (Table 4.3) are identified for each Key Factor. The Indicator scoring criteria requires that habitat and/or population parameters of all species of conservation concern be expressed in terms that can be quantified, measured, monitored and

influenced. This step also requires that each assumption, assertion and decision be supported by the best science available, including all known literature and expert opinion.

Table 4.3. Indicators of Terrestrial Habitat Condition.

Road density
Spatial extent of buffer
Canopy closure
Percent total herbaceous ground coverage
Exotic forbs and grasses
Exotic shrubs and woody vines
Broomsedge imbalance
Loblolly pine presence
Exotic forbs and grasses
Exotic forbs and grasses
Oak dominance
Red oak/Overcup oak ratio Cottonwood decline
Sugarberry increase
Oak component
Loblolly encroachment
Percent herbaceous groundcover w/minimal woody plants
Shortleaf pine decline
Percent total herbaceous ground coverage
Patch size
Patch proximity
Average block size
Number of blocks
Fire seasonality/intensity
Fire frequency
Road proximity
Percent urban/impervious
Percent forested
Percent pastureland
Point source pollution
Unpaved road density

Ratings for Indicators

For each Indicator, the terrestrial habitat team determined and weighted a range of measurements to assess the relative health of associated Key Factors, which in turn reflect the integrity of the associated habitat:

Poor Level: Rapid declines and/or extirpations imminent.

Fair Level: Gradual, long-term declines and/or extirpations possible.

Good Level: Populations are expected to remain stable indefinitely.

Very Good Level: Populations robust; increases in abundance possible.

Conservation Actions

Conservation actions propose to manage and conserve the identified habitats as determined by the Indicator thresholds. The threshold for viability of the species is defined for each habitat at the 'Good' level. Conservation actions were formulated for each habitat that call for bringing each Indicator's current status up to or above the 'Good' threshold. Using this methodology, 383 measurable conservation actions were formulated for the 38 habitat types using specific, quantified objectives for each Indicator.

Current Status and Monitoring

In addition to species-specific monitoring strategies presented in Section 2, Arkansas' habitat monitoring strategy consists of measuring indicators in the field. In developing the AWAP, we determined one area of weakness is that information on current status, trends and effort to attain goals is lacking. Developing a cost-effective methodology for monitoring status, coordinated with adjacent states and in-state partners, public and stakeholders will be a priority for the near future of AWAP efforts.