Section 1. Arkansas Wildlife Action Plan

Guiding Principles

From the outset, Arkansas' AWAP teams chose to focus on developing a living planning tool, rather than a static funding document, that could be useful to professional partners, citizen conservationists and land managers. At the core of Arkansas' plan are teams of scientists who have populated a database which stores and links information and makes possible the calculation of priorities. The result is a database that can be readily updated as data gaps are filled and conservation actions are accomplished. With every update, the status of species of greatest conservation need and the relationships between species, habitats and conservation actions can be reexamined in an efficient manner that will demonstrate progress over time.

Science-based decision making relies on making accurate information accessible and usable. In Arkansas, scientific teams, the general public, nonprofit groups, government agencies and land managers will rely on database-managed priorities communicated online at www.WildlifeArkansas.com.

Implementing Arkansas' Wildlife Action Plan

State Wildlife Grants support activities promoting the betterment of Arkansas' designated species of greatest conservation need (SGCN). Because there is much more to do to conserve SGCN than can be funded in a given year, Arkansas developed a science-based prioritization process to make the most efficient use of available funds. The process relies on a database framework for organizing, analyzing, storing and retrieving data. Each step in the process receives expert input from the plan's partners and stakeholders. Projects funded by State Wildlife Grants (SWG) will be chosen from a list of implementation needs that are generated from the database, coarse-filtered by Science Teams, then fine-filtered by the Steering Committee and the Implementation Team.

Given the current limits to available resources, doing our best for species of greatest conservation need means that funds must be targeted with an eye to optimizing results. The process will rely on a database framework for organizing, analyzing, storing and retrieving data, and it will rely on input from biologists, landowners, scientific teams, the general public, researchers, nonprofits, and the many partners whose involvement has contributed so much.

Monitoring and adaptive management are key elements of the conservation effort. Agencies and partners cannot afford to undertake large scale habitat protection, restoration or enhancement endeavors, only to discover after years of management that actions were ineffective or even counterproductive. Monitoring helps evaluate:

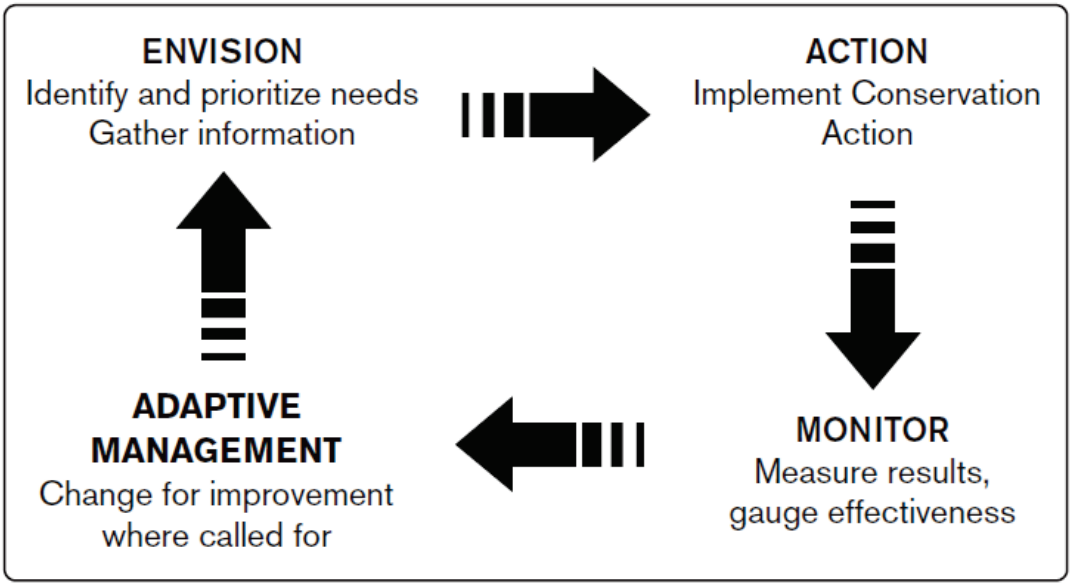
- assumptions made in species-habitat models and decision support tools;
- habitat responses to conservation actions;
- population responses to conservation actions; and
- progress toward habitat and population objectives.

New information generated from research and monitoring only becomes useful if it influences future conservation decisions and actions. These benefits are most pronounced when the elements are iterative

and ongoing, rather, than static or episodic. Thus, habitat conservation strategies are most appropriately viewed as living strategies that are continually developing in response to targeted research and monitoring results.

A continuous feedback loop is part of effective implementation. Successful application will depend upon sharing information and incorporating it into the overall body of knowledge held by the AWAP.

EFFECTIVE IMPLEMENTATION



A strategic approach for addressing and prioritizing multiple implementation needs

Assemble information

Implementation Step 1. As described in Sections 2, 3, 4 and 5, the Science Teams (Taxa Association Teams and Habitat Teams) populated the AWAP database with information on species of greatest conservation need ranked by species priority score. The teams linked species to ecoregion, ecobasin and habitats and weighted the relative importance of those relationships. The spatial relationships between ecobasins, habitats and ecoregions were mapped. For each species, Science Teams described problems faced, threats and sources, and data gaps, then recommended conservation actions and monitoring strategies.

Generate implementation priorities

Implementation Step 2. The purpose of Step 2 is to use the information gathered and prioritized in Step 1 to promote efficient and scientific evaluation and to prioritize the allocation of resources, Arkansas uses a systematic approach to ranking implementation needs. Implementation needs are categorized into three groups:

- **Data Gaps**: Survey or basic research needs identified during the planning process as requiring attention before further action can be taken. Examples are additional biological information needed for understanding of life history, population ecology, or distribution of SGCN prior to developing a conservation action.

- **Conservation Actions:** the protection, management and restoration activities that directly affect SGCN, often at the habitat management level.

- **Monitoring Needs:** Measuring how SGCN and habitats change over time. Of particular interest are those changes affected by the implementation of conservation actions. Monitoring drives the adaptive management process, guiding improvements in procedure, along with the identification and prioritization of additional data gaps and conservation actions.

On a 10-year cycle, a list of implementation needs is generated from the AWAP database using these data sets:

- a ranked list of all data gaps,

- a ranked list of all conservation actions, and

- a ranked list of all monitoring needs.

Prior to generating the list of implementation needs, the database will be updated with information gathered since the last revision, including information about previously implemented and ongoing research, conservation actions, and monitoring activities. Priority rankings associated with database-generated lists will be derived from an automated computation of the weights and rankings associated

with SGCN, habitats, key factors, and indicator records. The information on this list is sorted and provided to teams representing these groupings: bird, mammal, fish, insect, crayfish, mussel, herpetofauna, other invertebrates, karst species, aquatic habitats, and terrestrial habitats.

Concurrently, a list of recent, current, and planned statewide monitoring, inventory and research actions affecting SGCN or habitats within Arkansas is solicited from partners, researchers and interested parties. This list has been reconciled with the database-generated list of monitoring needs to minimize duplication, to provide synergy and to identify coordination opportunities. Comparing these two lists assists the Science Teams in identifying species that need more information prior to recommending monitoring efforts.

Develop ten-year draft implementation schedule

Implementation Step 3. Each team will develop a ten-year implementation instrument to be used as a coarse-scale tool to help teams sort priorities and facilitate the creation of subsequent, finer-scale priority action lists.

This step will be repeated biennially. Science Teams will convene to review and synthesize implementation needs. The result is a draft of implementation for the next ten years based on urgency, feasibility and scale, cost, capacity and funding availability, partnership/leverage opportunities, and other factors as circumstances warrant.

Science Teams prioritize implementation needs

Implementation Step 4. Every two years, the continuously updated AWAP database will provide Science Teams with updated ranked lists for data gaps, conservation actions, and monitoring needs.

After comparing the ranked lists with the existing ten-year implementation plan, and taking into account new information that warrants consideration, each team will identify top priorities in each category.

Each team's task is to then narrow the list to a "Hot List" of the highest priority needs that should be funded in the next two years if a proposal is submitted. The Hot Lists from each team include a mix of data gaps, conservation actions and monitoring needs that reflect their best judgment for that point in time. A Hot List from each team is provided to the Steering Committee for further consideration.

Steering Committee recommends annual action items

Implementation Step 5. Each year, the Steering Committee reviews the Hot Lists provided from each Science Team. At this time, the Steering Committee considers any new information or opportunities to develop a set of Annual Action Items.

Priorities the Steering Committee uses to evaluate implementation needs are determined through a combination of factors: relevance to species of greatest conservation concern and/or habitat priorities identified in the AWAP, project design, feasibility and cost, and the amount of currently available funding. Members of the Steering Committee will rank project proposals using the above set of defined criteria.

The final list of data gaps, conservation actions and monitoring needs captured will vary from year to year as biological, ecological, and programmatic circumstances warrant. So too will the mix of species and habitats vary from year to year.

Pre-proposals requested to meet Annual Action Items

Implementation Step 6. With this list of needs selected, the State Wildlife Action Plan Coordinator will issue a Request For Pre-proposals, i.e. project descriptions including preliminary budgets, non-federal funding match opportunities and monitoring elements. Pre-proposals should address the implementation priorities selected by the Steering Committee.

Implementation Team selects projects for funding

Implementation Step 7. The Implementation Team is composed of decision makers who have considerable vision and influence in deciding how SWG funds, agency budgets and partner budgets can be used most effectively. Each January, they will select from an array of pre-proposals that were solicited in Implementation Step 6. After the projects are selected, the budget will be presented to the Commission Budget Committee for review and approval. Those projects that are selected will be submitted to the U. S. Fish and Wildlife Service for approval.

Monitoring and Performance Measures

Methodologies

Implementation Step 8. Monitoring is essential to making effective management decisions and evaluating the outcomes of those decisions.

Short-term performance measures

Performance measures to ensure the effectiveness of projects will be a requirement of each project selected for SWG funding. Performance measures are quantifiable results that relate to implementation actions and make it possible to revise conservation actions by responding to new information or changing conditions for species-specific actions. Each state wildlife grant funded project will include performance measures that will be incorporated into the Tracking and Reporting Actions for the Conservation of Species (TRACS) database. Wildlife TRACS is the tracking and reporting system for conservation and related actions funded by the US Fish and Wildlife Services (USFWS) and Wildlife and Sport Fish Restoration (WSFR) Program. Project results and performance measures will be reported to the Science Teams, Steering Committee, AWAP partners, and stakeholders annually, and compiled and presented at the biennial Wildlife Action Plan Symposium.

Examples of short-term performance measures:

- 65 acres of Arkansas Valley Prairie and Woodland were burned in spring for 3 years. This is an obligate habitat for Greater Prairie Chicken (*Tympanuchus cupido*) and the Prairie Mole Cricket (G*ryllotalpa major*).

- 122 acres of stream habitat sheltering the Arkansas darter was protected with a conservation easement.

• 2000 yards of instream and streambank habitat in the Eleven Point River was stabilized and restored. This is important habitat for the Ozark hellbender.

Long term Performance Measures

While short term performance measures quantify effort expended, to be adaptive, we need to tie efforts back to the effects on the status of SGCN. A long term view is required because effects on target species may be difficult to measure or may not be noticeable for years after the conservation action was taken.

Long term effects will be reflected in the:

• Priority Scores of each SGCN, which are reviewed and updated by the Science Teams,

• Lists of priority data gaps, conservation actions, and monitoring needs recommended by the Teams. (See Implementation Step 4).

For example, burning projects in the Ozark-Ouachita Prairie and Woodland have had a generally beneficial effect on SGCN, therefore, we would expect to see a lowering of priority score for species associated with this habitat type as restoration improves and expands available habitats over time.

	2008	2010
Greater Prairie Chicken (*Tympanuchus cupido*)	27	25
Prairie Mole Cricket (*Gryllotalpa major*)	31	8
Impact on statewide populations of SGCN associated with this habitat		
Henslow's Sparrow (*Ammodramus henslowii*)	33	33
Strecker's Chorus Frog (*Pseudacris streckeri*)	14	14
Northern Crawfish Frog (*Rana areolata circulosa*)	23	19
Hurter's Spadefoot (*Scaphiopus hurterii*)	19	14
Ornate Box Turtle (*Terrapene ornata ornata*)	6	6
Western Slender Glass Lizard (*Ophisaurus attenuatus*)	15	15
red milkweed beetle (*Tetraopes quinquemaculatus*)	21	15
Texas milkweed beetle (*Tetraopes texanus*)	21	15
Southern Prairie Skink (*Eumeces obtusirostris*)	17	15
Painted Bunting (*Passerina ciris*)	23	34
Le Conte's Sparrow (*Ammodramus leconteii*)	15	14
lace bug (*Acalypta lillianus*)	15	14

Note: A higher score indicates a greater degree of imperilment

A commitment to revision in 2025

Implementation Step 9. The steps of the implementation process incorporate consistency in managing changing priorities. AWAP teams and staff will continually update the AWAP database and communicate priorities with partners and stakeholders.

The first formal review and revision of the AWAP was completed and submitted to USFWS for approval in September 2015.

AGFC commits to completing a comprehensive review and revision of the AWAP process and plan by October 1, 2025. At that time, not only will the functional process be evaluated, but the database, protocols and fundamental logic behind assumptions will be reassessed.