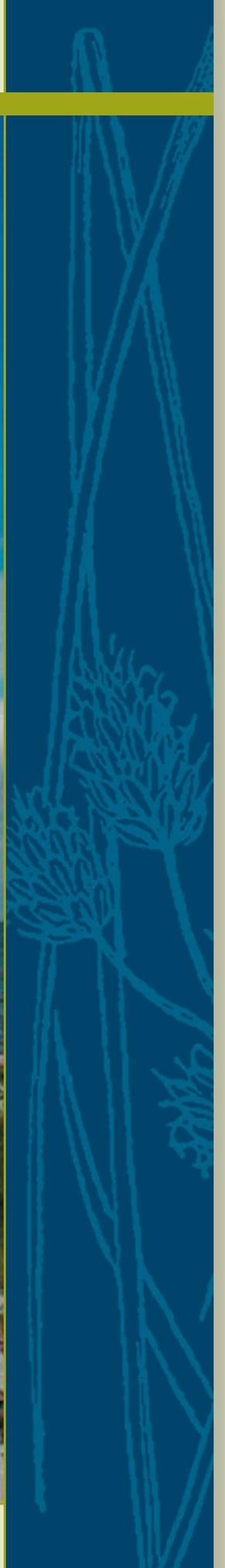


State Wildlife Action Plans

Working together to prevent wildlife from becoming endangered





Leaders in Wildlife Conservation Applaud Wildlife Action Plans

We are proud to announce a historic milestone in wildlife conservation: the creation of 56 wildlife action plans, one for each state and territory. The wildlife action plans collectively form a nationwide strategy to prevent wildlife from becoming endangered.

Our nation's wildlife agencies collaborated with a remarkable list of partners to address the challenges to wildlife, identifying ways to conserve the lands and waters that are essential to both wildlife and people. The action plans differ from state to state, reflecting each state's unique natural resources and conservation needs. All are based on the solid success record of state wildlife agencies in restoring habitats, managing wildlife and working with local conservation groups and private landowners to find solutions for wildlife. The action plans are firmly grounded in science, and they also balance differing interests in how we use the lands and waters that are essential to wildlife. The result? Practical action plans that will work in every state.

Our nation has a long history of success in conserving wildlife. Over the last century, we have brought some of our most treasured wildlife back from the brink of extinction. Today, the challenges to keeping wildlife from becoming endangered are greater than ever before. By taking the next critical step toward implementing the wildlife action plans, we will be closer to meeting our goal of preventing wildlife from becoming endangered. There is a role for everyone to implement the wildlife action plans, whether it is managing land, conserving species, or providing funding opportunities. Join us now to ensure our nation's children and grandchildren will be able to enjoy wildlife and the places they live.



John Cooper, President

Association of Fish and Wildlife Agencies



H. Dale Hall, Director

U.S. Fish and Wildlife Service

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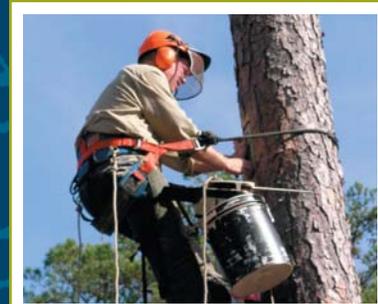
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Collared Lizard/Christine Clinger, NV DOW



Weighing a bobcat/IADNR



Milkweed survey/Missouri Department of Conservation

Executive Summary

Wildlife Action Plans: A Bold New Direction for Conservation

The wildlife action plans represent a collective vision for the future of conservation. For the first time, states have had the opportunity to assess the full range of challenges and actions that are vital to keeping wildlife from becoming endangered.



Bald eagle/USFWS, Dave Menke

“The state wildlife action plans are setting the stage for a bold and ambitious new direction for conservation of species and habitats.”

– Ron Regan, Wildlife Director, Vermont Fish and Wildlife Department and Chair, Association of Fish and Wildlife Agencies, Teaming With Wildlife Committee

The impetus for the historic planning effort comes from the Teaming with Wildlife coalition, representing more than 3,500 agencies, conservation groups, and businesses who for more than a decade have tirelessly championed the cause for funding to keep wildlife from becoming endangered. The coalition’s work led to passage of the Wildlife Conservation and Restoration Program

and the State Wildlife Grants Program in 2000. As a requirement of these programs, Congress asked each state wildlife agency to develop a “comprehensive wildlife conservation strategy”—a *wildlife action plan*—that evaluates wildlife conservation needs and outlines the necessary action steps.

While the wildlife action plans share a common framework of the eight required elements, they are tailored to reflect each state’s unique wildlife, habitat, and conservation needs. States worked

closely through the Association of Fish and Wildlife Agencies and the U.S. Fish and Wildlife Service on the development of the wildlife action plans. By combining the best scientific information available with extensive public participation, states developed effective action plans that will work for wildlife and for people.

The wildlife action plans focus on practical, proactive measures to conserve and restore important lands and waters, curb establishment of invasive species and address other pressing conservation needs. The tools for conservation employed in the action plans emphasize incentives, partnerships and collaborative management, rather than top-down regulations. The action plans also stress the importance of gaining the knowledge necessary to effectively conserve a broad range of wildlife species. In addition, every state wildlife action plan incorporates continued monitoring and evaluation in order to measure the success of the proposed actions in conserving wildlife.

Taken as a whole, the wildlife action plans present a national action agenda for the conservation of wildlife species that is focused on those that have not benefited from conservation attention due to lack of dedicated funding. The results are already apparent in improved relationships at all levels—across public and private ownerships, across state boundaries, and in the growing list of new groups and individuals working together for wildlife. Taking the timely next steps to adequately fund these wildlife action plans is crucial in order to achieve the goal of preventing wildlife from becoming endangered.

Wildlife At The Crossroads—The Need For Action

Today, we stand at a crossroads for wildlife that defines America the Beautiful. Across the planet, one in three amphibian species is waning. In the U.S., amphibian declines are particularly serious in California, the Rocky Mountains, the Southwest and Puerto Rico. More than one-quarter of all bird species in the U.S. have dropped in numbers since the 1970s, and more than 200 of 800 native bird species are listed on the Audubon WatchList, which serves as an early warning system for birds that could become endangered.

From densely populated states like New Hampshire to the big sky country of Montana, and from the coasts of Florida to California, conserving high quality habitat, restoring degraded lands and waters, and removing invasive species are among the top priorities for conservation.

We are clearly at a crossroads, and we have a choice. We can wait for wildlife to decline and react to problems with expensive, last-ditch recovery efforts, or we can act now to prevent wildlife from becoming endangered. Taken together, the wildlife action plans represent the right decision to take action before wildlife recovery becomes costly and controversial. Working together, we can take proactive and cost-effective steps to conserve wildlife before it is too late.



Riparian restoration in Oregon/Bruce Campbell

“It is clear that our agencies have taken this effort well beyond anyone’s expectations. The agency biologists, planners, and managers, with considerable help from our conservation partners, have crafted conservation plans that identify priority actions to conserve our nation’s wildlife and key habitats. This tremendous effort has illuminated a national need that calls for securing additional funding and exemplifies our leadership role in North American conservation.”

—Ed Parker, Chief, Bureau of Natural Resources, Connecticut Department of Environmental Protection; member of the National Advisory Acceptance Team; Vice-President of the Association Fish and Wildlife Agencies

A New Era for America’s Wildlife

The state wildlife action plans represent a new era for America’s wildlife. The collective feat of completing the action plans took more than three years and required massive mobilization, cooperation and effort. If we take a closer look at how these plans were developed, we see the value both in the completed action plans and in the process that yielded new effective partnerships.



Riparian planting/Idaho DFG

American Wildlife Conservation: Rising to Challenges in Times of Need

In America, wildlife is considered a public trust held by the government for the benefit of the common good. This fundamental idea dates back to the American Revolution and the establishment of our nation’s democratic ideals. State wildlife agencies have the responsibility to assure that wildlife remain healthy and to provide people with plentiful places to enjoy wildlife, whether it is watching animals, hunting, or fishing.

As our nation has grown, America’s wildlife agencies have adapted and expanded their efforts in the face of new, unprecedented conservation challenges. Time and again, when faced with new conservation challenges, wildlife agencies have worked together with sportsmen and women and other conservationists to craft bold, landmark conservation programs.

The beginning of the twentieth century marked a pivotal point for wildlife. Until then, few regulations protected wildlife.

Herds of bison, antelope and elk on the open plains almost vanished, white-tailed deer fell to one or two percent of their original numbers, flocks of wild turkey were scarce, and lakes once abundant with waterfowl fell silent.

Sportsmen and women, conservationists and game wardens rallied. Thanks to their unceasing efforts,

Congress responded with a key piece of legislation in 1937, the Wildlife Restoration Act (also known as the Pittman-Robertson Act). The Act established a user fee in the form of an excise tax on hunting equipment to conserve game species and assure conservation of their habitats. A similar act passed in 1950, the Sport Fish Restoration Act (also known as the Dingell-Johnson Act), which extended the user fee to fishing gear with a focus on restoring fisheries. Additional funding for fisheries restoration was provided with the enactment of the Wallop-Breaux Amendments in 1984.

The state wildlife agencies used the fees generated from these programs effectively. In combination with regulated hunting and fishing harvests, the agencies worked with partners to conserve important habitats, and they transplanted game species to help restore populations. The return of the white-tailed deer, striped bass and wild turkey are a tribute to the wildlife agencies, sportsmen and women, conservationists, and the outdoor industry who all worked together.

Half a century later, Congress responded to another time of wildlife crisis with the passage in 1973 of the Endangered Species Act. By providing emergency protec-

tions for wildlife in immediate danger of extinction, the Endangered Species Act helped prevent species from disappearing forever. Nearly every state also enacted state programs to formally identify and protect critically imperiled species. This combined effort has resulted in the successful recovery of many treasured species such as the bald eagle and peregrine falcon.

The Unfinished Legacy

The tremendously successful programs of the 20th century were focused on species that were hunted and fished or formally identified as “endangered”. While these programs have achieved remarkable successes, the approximately 85 percent of our wildlife that are not considered “game” or “endangered” have lacked adequate conservation attention. Consequently, many are declining. This includes thousands of species of birds, mammals, reptiles, amphibians, fish and invertebrates. Lacking the resources to conserve these remaining species, our nation’s wildlife agencies have been constrained in their ability to realize fully their conservation mission to conserve all wildlife resources.

Teaming with Wildlife: A National Coalition

In the early 1990s, a coalition of wildlife agencies and conservation organizations launched the Teaming with Wildlife initiative to expand the funding base for wildlife conservation to include species that are not “game” or “threatened” or “endangered” in order to allow state wildlife agencies to take a more comprehensive approach to conservation. The initiative informs members of Congress and other decision-makers about the importance of this work and the need for funding. Over time, the initiative has grown to include more

than 3,500 organizations and agencies, including bird watchers, hunters and anglers and other recreational users, conservationists, professional biologists, wildlife managers, and nature-related businesses.

New Federal Funds for Wildlife Conservation

In response to the efforts of the Teaming with Wildlife initiative, Congress enacted two new programs in 2000, the Wildlife Conservation and Restoration Program and the State Wildlife Grants Program. Both programs provide funding to state wildlife agencies for on-the-ground conservation projects and wildlife conservation planning aimed at preventing wildlife from becoming endangered, and both are administered by the U.S. Fish and Wildlife Service. The Service distributes funds to states based on each state’s population and land area. Federal funds allocated under both programs must be matched by funding from state or other non-federal sources. Although

The State-Federal Wildlife Conservation Partnership

Wildlife conservation in the United States is a partnership between the states and the federal government. While state wildlife agencies have the primary responsibility for managing wildlife, the federal government plays a crucial role in helping conserve migratory species, managing national wildlife refuges and other federal lands, and providing funding for wildlife conservation. The state wildlife agencies and the U.S. Fish and Wildlife Service have a long history of working closely together to jointly support the national interest in wildlife conservation. Federal funds for state-level wildlife conservation are administered by the U.S. Fish and Wildlife Service, including the Wildlife and Sport Fish Restoration Programs, State Wildlife Grants, Endangered Species programs, and the Landowner Incentive Program.

the Wildlife Conservation and Restoration Program was authorized as a permanent program, funding was only provided for the first year. Nonetheless, federal funding has continued to flow to the State Wildlife Grants Program. Over the

“The strategies are large-scale, efficient, effective and will give taxpayers the biggest bang for the buck.”

– Amelia Orton-Palmer, Biologist, U.S. Fish and Wildlife Service’s lead staff person on the wildlife action plans in the Mountain-Prairies Region

last five years, these two programs have provided more than \$400 million in new money for wildlife conservation, funds that have been matched with over \$200 million from the states. These programs have become the federal government’s primary vehicles designed to prevent wildlife from becoming endangered.

Wildlife Action Plans: A Strategic Approach to Wildlife Conservation

As a condition for receiving the new federal funds from the Wildlife Conservation and Restoration Program and State Wildlife Grants Program, Congress charged the state wildlife agencies with preparing a strategic assessment and action plan for wildlife, known technically as a “comprehensive wildlife conservation strategy.” The states were required to submit these action plans to the U.S. Fish and Wildlife Service for review by October 1, 2005.

Eight Elements of Conservation Success

Congress required states to address eight core elements in the wildlife action plans. The states first identified the condition of wildlife in terms of wildlife distribution, abundance, locations, and conditions of habitats. Next, they analyzed those findings and identified knowledge gaps and problems in order to specify actions needed to address conservation needs. Then they developed monitoring plans to ensure the conservation of species and habitats and the effectiveness of the actions. During development and implementation of the plans, the states made great efforts to coordinate with conservation partners, including federal, state, and local agencies, Indian tribes, and the

The US Fish and Wildlife Service’s National Advisory Acceptance Team

The Director of the U.S. Fish and Wildlife Service established the National Advisory Acceptance Team to review each of the wildlife action plans. Reflecting the collaborative spirit that characterized the entire process, this team was composed of assistant regional directors from each of the eight U.S. Fish and Wildlife Service regions and five state wildlife agency directors. The group held week-long meetings once a month to review the state action plans, with in-depth regional reviews taking place between meetings. The team carefully scrutinized every wildlife action plan to make sure that all eight required elements were addressed fully and then made a final recommendation of approval to the U.S. Fish and Wildlife Service Director.



Karner blue butterfly/J&K Hollingsworth

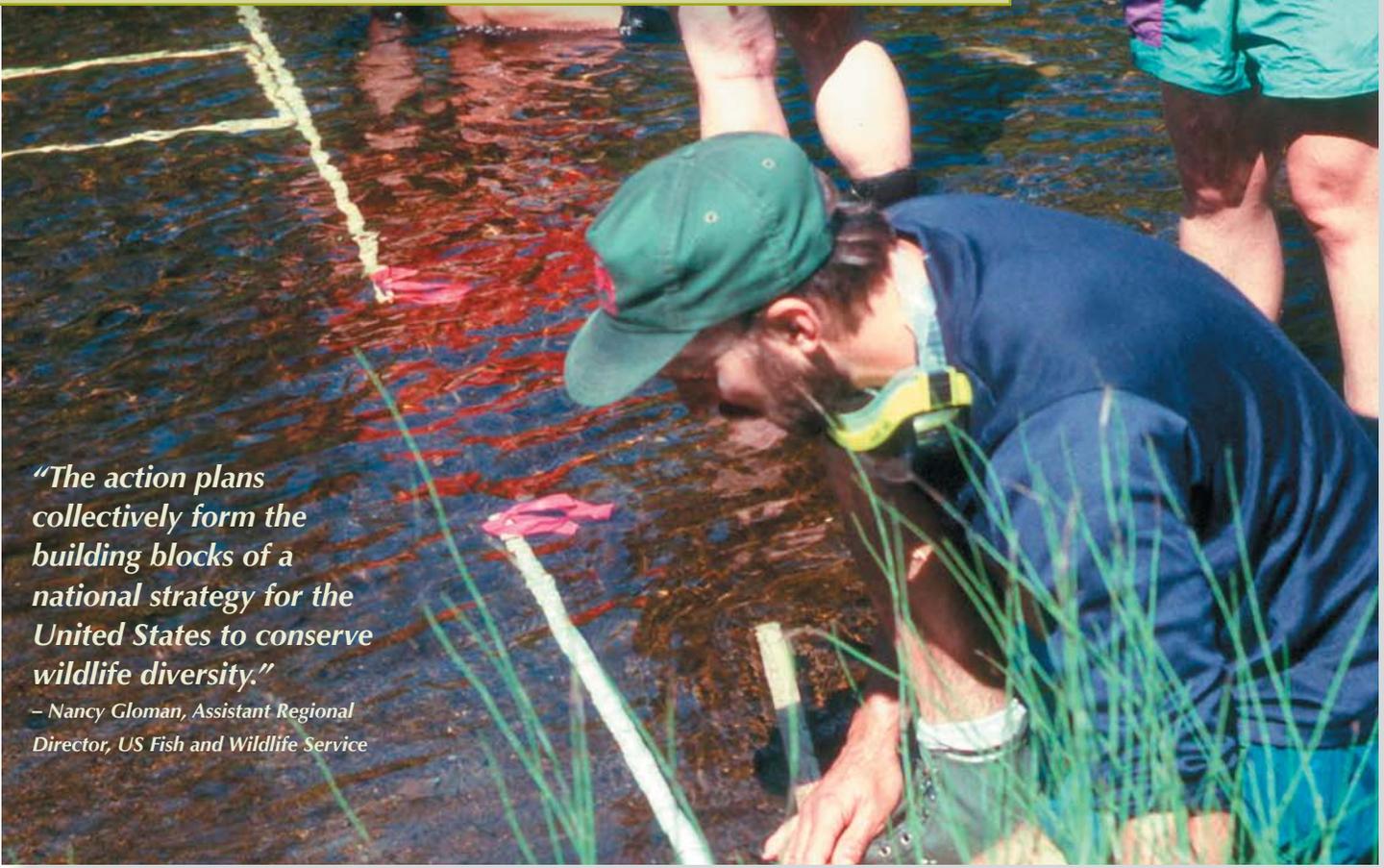
public in order to secure expertise and opinions. The states included a schedule of plan review to make sure it would be regularly updated. These statewide plans use all available information to outline the most pressing conservation needs in each state.

Eight Required Elements of Wildlife Action Plans

Congress asked states to address eight elements in order to conserve all wildlife, with a focus on wildlife of greatest conservation need:

- (1) Information on the distribution and abundance of **wildlife**, including low and declining populations, that describes the diversity and health of the state's wildlife.
- (2) Descriptions of locations and relative conditions of **habitats** essential to species in need of conservation.
- (3) Descriptions of **problems** that may adversely affect species or their habitats, and priority research and survey efforts.
- (4) Descriptions of **conservation actions** proposed to conserve the identified species and habitats.
- (5) Plans for **monitoring** species and habitats, and plans for monitoring the effectiveness of the conservation actions and for adapting these conservation actions to respond to new information.
- (6) Descriptions of procedures to **review** the plan at intervals not to exceed 10 years.
- (7) **Coordination** with federal, state, and local agencies and Indian tribes in developing and implementing the wildlife action plan.
- (8) Broad **public participation** in developing and implementing the wildlife action plan.

(Fiscal Year 2001 Commerce, Justice, State and Related Agencies Appropriations Act, Public Law 106-553, codified at U.S. Code 16 (2000) 669(c)).



“The action plans collectively form the building blocks of a national strategy for the United States to conserve wildlife diversity.”

– Nancy Gloman, Assistant Regional Director, US Fish and Wildlife Service

Freshwater mussel survey/Beth Swartz

Charting the Course

“We collectively are trying to construct a new comprehensive vision for the future of conservation in our states. Make no mistake, this is uncharted territory, so there is no blueprint, no off-the-shelf recipe, no one size fits all. Each state may learn facets of its strategy from the others, but each state is unique in its needs.”

– Dr. Jeffrey Koenings,
Director of the Washington
Department of Fish
and Wildlife

Flexible, Innovative Conservation Strategies

State wildlife action plans needed to meet the eight required elements in order to receive State Wildlife Grant funding, but, ultimately, the opportunity was for states to accomplish the larger goal of comprehensive conservation in order to prevent wildlife from becoming endangered. Congress and the U.S. Fish and Wildlife Service gave states considerable flexibility in developing strategies that fit each state’s unique wildlife resources, management context, and local issues. The intent was to give states the flexibility to reach the goal of keeping wildlife from becoming endangered in a way that works for wildlife and for the people in each state.

Wildlife agencies worked together to share information and priorities across jurisdictions. The states also gathered ideas and suggestions from federal agencies and conservation groups, drawing on many different models and approaches to develop new and innovative planning approaches.

Association of Fish and Wildlife Agencies Leads National Effort

The Association of Fish and Wildlife Agencies played a pivotal role in convening states to help them develop high quality action plans that

would guide wildlife conservation in the states. Working through the Association, the state wildlife agencies outlined guiding principles for the planning process

and created a working group of state agency personnel, U.S. Fish and Wildlife Service staff, other agency partners, and conservation groups. The working group recommended starting points on issues such as defining wildlife of greatest conservation need, identifying and assessing habitats, and public involvement and outreach.

The Association’s semi-annual meetings and working group meetings provided a forum for states to share ideas with each other, and to keep the wildlife action plans on track for completion. In 2003, the Association and the U.S. Fish and Wildlife Service sponsored workshops in four regions of the country for agency personnel and partner organizations to review key planning tasks, brainstorm ideas, and test out approaches. In 2004, one year before the action plans were due, the Association hosted a national “One Year Out” conference where participants from almost every state and territory shared ideas and discussed the merits of different planning approaches. The conference proved an ideal forum for discussing both cutting edge conservation planning theories and practical experience in on-the-ground wildlife management. Throughout the entire planning process, the Association organized smaller meetings, conference calls, and workshops as new topics arose, maintaining an ongoing dialogue across the states and building an active network among the people writing the plans.

Working Together: Reaching Out to Stakeholders and Citizens

The state wildlife action plans stand out from many prior conservation plans because of the broad participation and open



Bighorn capture/Utah DWR

The Association of Fish and Wildlife Agencies

The Association of Fish and Wildlife Agencies' mission is to serve as the voice of fish and wildlife agencies by helping to foster a deep appreciation and understanding for the public management and conservation of the fish, wildlife, and natural communities that represent the diversity of North America.



ASSOCIATION of
FISH & WILDLIFE
AGENCIES

In 1902, eight wildlife managers from six states met in Yellowstone National Park on behalf of the country's beleaguered fish and wildlife populations. They realized that the nation's rich fish and wildlife legacy would survive only with careful planning and vigilance. And they stood together—one voice for fish and wildlife.

Today, more than 100 years since their first meeting, the Association of Fish and Wildlife Agencies includes all 56 states and territories, and the federal agencies of the United States. The Association also represents many provinces of Canada and Mexico. Its core functions are inter-agency coordination, legal services, international affairs, conservation and management programs, and legislation. Over the last century, the Association has provided the forum for achieving most of our nation's landmark fish and wildlife successes—including the Pitman-Robertson, Dingell-Johnson, and Wallop-Breaux Acts.

process. This was not just a technical exercise carried out by a few scientists and planners. Thousands of people contributed to the action plans, with input and advice coming from federal, state and local government agencies, bird watchers, hunters, anglers, private landowners, conservation groups, local industries, and many other members of the community. The extensive involvement of stakeholders and the general public demonstrated a widespread enthusiasm for actions to conserve wildlife and habitats. When it comes to caring about wildlife, there is plenty of common ground.

Public participation and stakeholder coordination were requirements of the wildlife action plan process laid out by Congress. The state wildlife agencies saw beyond this requirement and focused instead on their long-standing role to serve both wildlife and people. By working with stakeholder groups and the general public, state wildlife agencies could translate pressing conservation needs into practical, consensus-based actions. The wildlife action plans are firmly grounded in science, and they successfully balance differing interests when considering how we use the lands and waters that are home to wildlife.

The range of effective ways employed to involve people in the development of the wildlife action plans can serve as models for future conservation efforts. In developing the wildlife action plans, many state agencies tried to break free from traditional "public comment periods" and routine public meetings to find new ways to engage resource users and the general public in the wildlife action plan discussion. Working together led to new relationships, fostered greater trust and encouraged creative problem solving. Across the country, people contributed time and energy to action plans that they now can claim as their own. Many of the individuals and groups are taking the next step toward carrying out the action plans as partners in wildlife conservation.

In Action: Nebraska's Natural Legacy Project Partnership Team

The Nebraska Game and Parks Commission recognized early on the importance of including a diverse array of stakeholders in their state's action plan, known as the Nebraska Natural Legacy Project. Wildlife agencies and some stakeholders, such as private landowners, have had conflicts in the past over endangered species and federal regulations that

"Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity."

*– George Patton, General,
United States Army*

might impede farming and ranching. The state agency created the Natural Legacy Project Partnership Team to involve stakeholders in the public participation process. The members became trained facilitators and hosted 16 public meetings that generated positive discussions among private landowners and conservation groups.

The stakeholders who served on the Partnership Team remain active in carrying out the action plan's recommendations. Groups as diverse as The Nature Con-

servancy, Pheasants Forever, the Nebraska Cattlemen, and Audubon Nebraska have taken an active role in putting the action plan to practice by working with landowners and implementing much-needed prairie restoration projects that benefit people and wildlife.

In Action: Taking New Jersey's Action Plan to Stakeholders and the General Public

In New Jersey, the Division of Fish and Wildlife first worked internally to create a draft that was reviewed by conservation leaders. Then, the Division of Fish and Wildlife and New Jersey Future, an independent foundation, co-hosted a "Wildlife Summit" that drew more than 150 people

representing a spectrum of agencies, watershed associations, planning councils, conservation organizations, and sportsmen's groups and foundations, who engaged in lively discussion on nine key conservation topics. Their comments provided invaluable guidance to shaping the final wildlife action plan.

Building on Existing Conservation Plans

The wildlife action plans built upon decades of conservation experience and a sizeable volume of prior plans for individual species, habitats, and landscapes. Rather than attempt to duplicate or replace prior conservation planning efforts, developing the wildlife action plans gave the states the opportunity to take a new look at them and to synthesize what they collectively meant for preventing wildlife from becoming endangered. By drawing together the ideas from these other sources, the wildlife action plans began with a strong foundation.

In Action: Building on Florida's Existing Efforts

The Florida Fish and Wildlife Conservation Commission is a leader in conducting species assessments and adopting systematic, landscape-based designs to protect connections among important habitats and maintain important natural processes. Florida incorporated two of the most significant conservation planning efforts for statewide wildlife diversity in its wildlife action plan. The Florida Fish and Wildlife Conservation Commission's report, *Closing the Gaps in Florida's Wildlife Habitat Conservation System*, identified the minimum amount of land in Florida that, if conserved, would ensure the long-term persistence of most elements of Florida's wildlife diversity. The University of Florida's Ecological Network Project identified a statewide system of landscape hubs and conservation corridors to conserve critical elements of Florida's native ecosystems and maintain connectivity among ecological systems and processes. These resources were used as building blocks to create new and innovative conservation efforts in Florida's wildlife action plan.



Bobcat/New Jersey DEP

A Strong Foundation of Prior Planning

In developing the wildlife action plans, state wildlife agencies drew on a sizeable volume of data sources and prior plans for individual species, habitats, and landscapes. Plans consulted by wildlife agencies ranged from:

- Existing Wildlife and Fish Management Plans
- State Heritage Programs/Conservation Data Centers
- Audubon Important Bird Areas
- Regional Species At Risk Conservation Plans
- Endangered Species Recovery Plans
- Existing Wildlife Diversity Strategic Plans
- Partners in Flight Bird Conservation Plans
- The Nature Conservancy's Ecoregional Assessments
- North American Waterbird Conservation Plan
- US Shorebird Conservation Plan
- Bat Conservation Plans
- Ducks Unlimited Conservation Plans
- Regional Marine Fisheries Commission Management Plans
- GAP Analysis Programs
- State Natural Areas Assessments
- State and Regional Growth Management Plans
- State Outdoor Recreation Plans
- National Wetlands Inventory
- Partners in Amphibian and Reptile Conservation Management Guidelines



Egrets at sunset/USFWS

Focusing on Wildlife in Greatest Need of Conservation

The wildlife action plans are building a new approach to conservation by looking beyond wildlife that is formally listed as “endangered” or managed as a traditional game species. Congress asked states to assess the health of a “full array” of wildlife with particular attention to the wildlife species that have low or declining populations and are “indicative of the diversity and health of wildlife” of each state. Most of the wildlife action plans refer to these targeted species as “species of greatest conservation need.” In identifying these species, the intent was not to define a new “official” status like the Endangered Species list. Instead, the goal was to identify the wildlife species that need proactive attention in order to avoid additional formal protections.

States used a variety of information sources to identify target species, including natural heritage programs and other wildlife occurrence databases, data from other planning efforts and assessments, and input from agency biologists, academics, and other scientific experts. While the selection process included species under state-level programs and formal protection of the federal Endangered Species Act, the effort placed a major emphasis on identifying a broader set of species of concern that would include at-risk species not yet identified by other conservation efforts. States identified wildlife of greatest conservation need based on a variety of criteria: if a species had low populations, or had already been formally identified as a conservation



Little Fishing Creek, freshwater mussel distribution survey/NCWRC

“North Dakota’s wildlife action plan does a good job of highlighting the important systems, like native grasslands and wetlands, that are critical to maintaining healthy populations of a myriad of species of wildlife for future generations of North Dakotans. I am hopeful this plan will generate a diverse suite of partners who can focus their efforts on protecting these critical components of North Dakota’s natural heritage.”

– Scott Stevens, Ducks Unlimited, Bismarck, North Dakota



Oystercatcher/South Carolina DNR

priority, or showed other signs of imminent decline, it was flagged for attention. Some states, such as Montana, Alabama and Virginia, opted for a tiered approach, prioritizing their state’s wildlife of concern in two or more levels of concern or priority.

Because each state developed a different approach, the wildlife identified as species of conservation need vary significantly. For example, the South Carolina action plan identifies more than 1,200 species in need of conservation, while the North Dakota wildlife action plan identifies 100. There are also differences that reflect special state-based considerations, such as including marine wildlife in coastal regions or urban wildlife in heavily populated areas.

In Action: Identifying South Carolina’s Species of Greatest Conservation Need

The South Carolina action plan identifies more than 1,200 species in need of conservation. South Carolina formed groups of experts on birds, mammals, reptiles, amphibians, fish, and invertebrates who shared knowledge to help build a list of wildlife meeting criteria for conservation. The species on the list include species that are rare or at-risk, those about which scientists have insufficient knowledge, and those that have not received adequate conservation attention in the past. The list also includes “responsibility” and “indicator” species. The Carolina pygmy sunfish appears on the list as a responsibility species because the fish exists almost entirely in this state. If it disappears here, it will likely become extinct. Fiddler crabs are an indicator species of the health of aquatic systems. Crabs accumulate toxins and serve as a warning sign for the health of aquatic systems.

In Action: Identifying North Dakota’s Species of Greatest Conservation Need

The North Dakota wildlife action plan identifies 100 species in need of conservation including birds, mammals, reptiles, amphibians, fish and freshwater mussels. The list was developed with expert input ranging from federal and state agency staff to non-governmental organizations, tribes and private citizens. The species were initially categorized by degrees of rarity, geographic range, and breeding status of species. However, fewer categories more accurately represented the level of knowledge of a broad range of species and facilitated those species being placed in order of priority. Several species included on the list are considered common in North Dakota, or, at least, not declining. These species were included because of the state’s importance as a last stronghold for that particular population, or because of their contribution to species diversity in North Dakota. North Dakota has a long-term stewardship role for these species, even if there is no immediate need for conservation there. For example, the American white pelican is found in great numbers in North Dakota, but is designated as vulnerable, imperiled, or critically imperiled in 27 states and provinces.

Identifying Habitat for Wildlife

As a critical first step in conserving wildlife, scientists must identify the lands and waters that species need in order to survive. Identifying, locating, and describing habitat for wildlife is complex. Biologists must look at an animal’s habitat needs for each day, season, and over the course of their lives. For example, long-eared owls nest and roost in woody draws, but they forage in grasslands and thus require both kinds of habitats. What do marine mammals need for food, for resting, for breeding areas and seasonal needs? How about fish like salmon that spawn in

streams and swim to the sea? Or eels that do the opposite, spawning in oceans and swimming up rivers?

Habitats are interdependent and each will affect and be affected by others, especially those geographically adjacent to each other. Additionally, most species move freely across habitats and are dependent upon a diversity of resources for life. The concept within the action plans is that by taking actions that sustain the health and integrity of the habitats, the broad array of wildlife that lives within each will be conserved and maintained.

While many of our great wildlife restoration efforts have restored one species at a time, today it is not practical or effective to take a species-by-species approach as our country experiences widespread loss and fragmentation of natural landscapes. In many of the wildlife action plans, states used a habitat or ecoregion approach to arrange wildlife species into meaningful and manageable groups. These groups were typically identified by large-scale vegetation or geographical associations across each state for terrestrial, freshwater and marine ecosystems.

In Action: Defining Essential Habitats for Virginia's Imperiled Wildlife

To identify both aquatic and terrestrial habitats for the wildlife action plan, Virginia created the Habitat Affinity Database, which matches species with their required habitat features. Using these relationships, the habitats for each of the most imperiled species were mapped where possible. This process involved an exhaustive review of the literature, coordination with experts, and mining of species observation databases to identify essential habitat and to define distributions. Then the necessary spatial data were assembled to create maps of where these habitats occur within each species' known range in Virginia. Spatial data included a series of terrestrial habitat factors such as land cover, distance from water, and topography. The aquatic habitat classification grouped streams into different classes depending on the region in which they are located, their size, the geology underlying the stream, the elevation of the stream, and the stream's biological community. These processes involved the use of sophisticated Geographic Information Systems software and techniques.

“It comes down to habitats. You cannot build conservation species by species. The task is too big. Habitat is the common ground for biologists, land managers, agencies and the public to work together to conserve wildlife.”

– Dennis Figg, Wildlife Programs Supervisor, Missouri Department of Conservation



Tennessee River Watershed mussels/VA Department of Game and Inland Fisheries

“For the first time, Illinois has a road map for where wildlife and habitat conservation wants to go! That is an incredible tool that anyone and everyone can find a piece to take ownership of, and do the work that will make a real difference.”

– Jeff Walk, author of Illinois’ Wildlife Action Plan, Illinois Department of Natural Resources

In Action: Identifying Priority Habitats for Mississippi’s Wildlife

Mississippi approached its habitat classification based on different planning needs in their wildlife action plan. They used the Bailey/US Forest Service Ecological Units as modified in 1998 by The Nature Conservancy for larger scale planning efforts. These ecoregions are widely accepted within the ecological community and have a close association with other planning efforts such as the Partners in Flight regional plans. In order to associate species of greatest conservation need with their habitats, Mississippi combined the *Ecological Communities List* from the state Natural Heritage Program into a list of core habitat types and subtypes. The habitat types and subtypes were used to identify threats and actions to abate the threats.

Identifying Challenges to Wildlife and their Habitats

Effective conservation depends on an assessment of the specific issues, challenges, and problems that are contributing to declines in wildlife and their habitat. Once we have identified the reasons

why wildlife are at risk, we can decide on action steps that will effectively and efficiently prevent them from becoming endangered.

A wide variety of factors contribute to the decline of wildlife. The lands and waters that provide habitat for wildlife can be destroyed, fragmented, or altered by development, roads, and resource extraction. The elimination of natural cycles like fire and flooding can also change habitats and reduce their value for wildlife. Non-native, invasive plants and animals can compete with native species for habitat and food. Contaminants can degrade the quality of habitat and directly harm animals. Human actions can directly disturb or injure animals, both intentionally and accidentally.

In addition to the breadth of issues facing wildlife, the specific challenges can vary greatly from state to state. An animal threatened in one part of the country by habitat loss can be subject to competition with invasive species in another state.

To lay groundwork for practical, effective conservation actions, the state wildlife action plans undertook an exhaustive assessment of the threats affecting species



Red-eared slider/USFWS, Gary M. Stolz

and habitats. By consulting with experts, reviewing existing research, and conducting new field studies, states investigated the specific issues driving wildlife into decline. The impact of these threats were evaluated at many different scales including species, habitats, ecoregions or basins, and statewide.

In Action: Identifying New York's State-wide Threats to Habitats and Species

As a core step in setting their conservation priorities, the New York State Department of Environmental Conservation looked at the array of threats to that state's wildlife and habitats. The magnitude of each threat was assessed based on species life history traits, population trends, habitat type and location, and other key factors. After identifying threats for individual species and habitats, the Department of Environmental Conservation's planning team evaluated the highest magnitude threats to New York's wildlife at the statewide level:

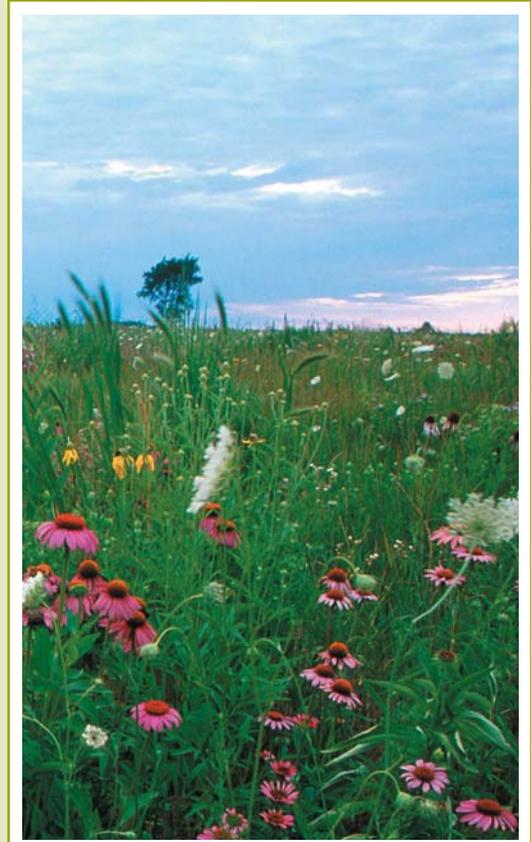
- Habitat loss, fragmentation, and disruption of natural functions
- Degraded water quality, acid rain, and alteration of natural river and stream hydrology
- Invasive exotic plants and animals
- Incompatible forest management and agricultural practices
- Direct human-wildlife conflicts, including vehicle collisions and illegal harvest
- Climate change affects on the distribution of plants and animals and small or isolated populations and the potential impacts of severe weather patterns.

In Action: Assessing Stresses to Illinois' Wildlife and Habitats

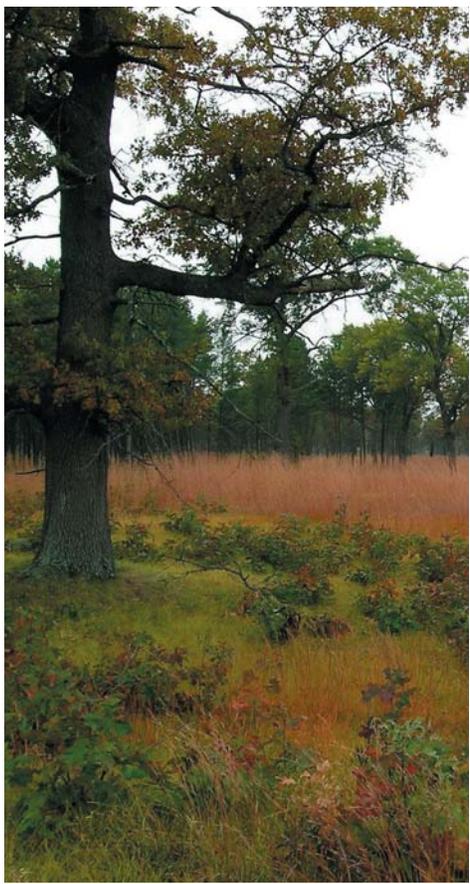
In assessing the stresses on Illinois' wildlife and habitats, the Illinois Department of Natural Resources reviewed published literature and consulted with experts.

The challenges for species and habitats were assessed at the level of habitat, community, population, and direct human-caused stresses. Experts convened by the DNR ranked stresses according to their effect on a species' or habitat's viability or abundance.

The Illinois wildlife action plan's assessment of the challenges facing the state's forest habitats illustrates the complexity of the issues facing this important habitat type. While the amount of forest has been increasing in Illinois over most of the last century, the exclusion of natural fires, the spread of invasive plants and disease, and poor timber harvest practices have resulted in forest structure and composition that is very different from what the state's native wildlife depend on for survival. In addition, the state's forests are highly fragmented by development and infrastructure. By looking at the full spectrum of issues facing this important habitat type, the Illinois wildlife action plan identifies the management and restoration interventions that are needed to improve the condition of the forests for the state's wildlife.



Wildflowers/Illinois DNR



Oak Barrens Habitat, Juneau Co., WI/Armund Bartz

“We can really do more for sensitive species conservation by working proactively through farmers and ranchers than we can through the federal listing of sensitive species. The Utah Division of Wildlife Resources & Utah Farm Bureau Federation share the same goal of making it unnecessary to federally list species as endangered or threatened in Utah.”

– Mark Petersen, Utah Farm Bureau Federation

Targeting Action at Key Challenges

The heart of the wildlife action plans is the identification of the action steps that are needed to recover and conserve imperiled wildlife by protecting their habitat and addressing other pressing conservation issues. Many prior conservation planning efforts have conducted assessments—identifying critical conservation needs or describing pressing challenges—but they have stopped there. The wildlife action plans take the process one step farther and actually identify the actions that need to be taken to address those problems and keep wildlife healthy. Because they draw

on a wide range of past efforts and new input, the action plans also provide a statewide, strategic picture of how different projects and activities can fit together.

The actions identified in the wildlife action plans are built on a foundation of cooperative conservation that emphasizes the importance of species and habitat health and prevention of problems rather than regulatory fixes or top-down mandates. There are often many different actions that we can take to address the challenges facing species and habitats. By working closely with stakeholders and local communities, wildlife agencies were able to identify practical and appropriate conservation actions that will work in each state.

The actions recommended by states have similar and important themes like research, species management, education, habitat restoration, and land conservation. What also emerged from the action plans are similar tools applied differently, depending on each state’s needs.

In Action: Cooperative Conservation for New Hampshire’s Blanding’s Turtles

New Hampshire’s Appalachian Oak Pine forest habitat is undergoing a high rate of loss due to development. Those forests include freshwater marshes that are home to the Blanding’s turtle, identified by New Hampshire’s wildlife action plan as a species of conservation need. The Blanding’s turtle is declining in numbers, due to high mortality from collisions with automobiles and lack of suitable nesting habitat. The state wildlife action plan calls for innovative private and public partnerships to strategically conserve the refuge and movement corridors that are essential for the Blanding turtle’s conservation:

- Incorporate habitat conservation into land use planning, including advising conservation commissions and planning boards, and working with regional planning agencies to conserve large blocks of unfragmented habitat.
- Develop tools for habitat conservation through existing programs, such as the Landowner Incentive Program, Land and Community Heritage Investment Program.
- Supply habitat maps to towns that have passed open space bonds to assist local decision makers with land purchases that will conserve the Blanding’s turtle and other declining wildlife and provide for nature-based recreation.

In Action: Restoring Wisconsin’s Oak Savanna

Fewer than 500 acres of intact oak savanna remain in Wisconsin. These oak openings are home to red-headed woodpeckers, ornate box turtles, woodland voles and a host of other wildlife identified in the action plan as species of greatest conservation need. The action plan helps the state prioritize restoration efforts by locating oak savanna that have major opportunities for restoration and by

identifying species of greatest conservation need that have a significant association with the habitat.

Bringing back the savanna will require considerable effort in order to focus on restorable sites and to hone restoration techniques. Education is also important to success; the action plan recommends setting up education demonstration areas to give people a first-hand look at the kinds of active management it will take to restore the savanna, including the rejuvenating force of prescribed fires.

In Action: Strategies to Prevent and Control Invasive Species in the Great Lakes Region

Michigan's wildlife action plan identifies preventing and controlling invasive species as a high priority. Today, more than 200 invasive species are in the Great Lakes basin, making invasive species one of the greatest threats to Michigan's lands, waters and wildlife. Control efforts and monitoring for one problem species alone, zebra mussels, may cost millions over the next ten years. The wildlife action plan outlines what is needed to stave off new invasive species from gaining entry into the Great Lakes region, including:

- Develop and apply invasive species monitoring and inspection systems for private aquaculture, the bait industry, the ornamental fish and plant industries, the shipping industry, and recreational boaters.
- Coordinate efforts between agencies, non-governmental organizations, businesses and individuals to develop a response strategy to contain and prevent establishment of newly introduced invasive species.

In Action: Putting Prairies Back into Oklahoma's Landscape

Historically, natural fires in eastern Oklahoma created open woodlands and prairies that supported the red-headed woodpecker, prairie warbler, brown-headed nuthatch, Bachman's sparrow, prairie butterflies and reptiles. Without fire, forests have grown dense and shady and prairies are overgrown. Consequently, these species are declining.



Yellowlegs/Oklahoma DWC

The state's wildlife action plan sets the stage for using controlled burns to restore the prairies and open woodlands, which will reverse wildlife declines. The action plan recommends using prescribed burning in a way that is feasible, safe, and economically viable to restore native prairies.

In Action: North Carolina's Landowners and Partners Team Up for Bog Turtle Conservation

Almost half of the nation's wetlands lie in the Southeast, and in North Carolina they add up to close to a fifth of the state. However, more than half of the state's original wetlands are gone—drained and converted for other uses. Wetlands are

“The ancient longleaf forest presented a vista of great beauty matched by few in the world.”

– John Powers, biologist,
Alabama Department of
Conservation and
Natural Resources

vital to the survival of a majority of the state’s rare wildlife and are important to everyone for absorbing flood waters and protecting water quality. The North Carolina wildlife action plan ranks wetlands such as mountain bogs as priority habitats for conservation action, and it ranks the rare bog turtle as high on the list for conservation attention. To conserve and restore mountain bogs that support the bog turtle, specific strategies in the action plan include:

- Engage in voluntary cooperative agreements with landowners to keep wetlands intact.
- Coordinate with the North Carolina Department of Transportation to conserve mountain bogs when planning new roads.
- Join with partners to search for wetlands that still support the bog turtle and other rare wildlife.

In Action: Conserving Alabama’s Long-leaf Pine Forests

Longleaf pine forests are considered one of the most endangered habitats in the country. Alabama’s wildlife action plan identifies longleaf pine conservation as one of its statewide priorities—with 31 species of greatest conservation need and 34 kinds of wildlife on an additional watch list associated with the habitat. That list includes species like the flatwoods salamander, the eastern indigo snake, mimic glass lizard, Rafinesque’s big-eared bat, as well as game species like the northern bobwhite and eastern wild turkey.



Flatwoods salamander/Pierson Hill



Common Murre/USFWS, R. Rohleder

Alabama’s wildlife action plan spells out what is needed for longleaf pine communities, including the restoration of longleaf pine on state-owned lands and coordination with local and federal agencies to conserve additional large tracts of longleaf pine forests. By working with partners like the US Forest Service, local land trusts, and The Nature Conservancy, the state will conserve and restore these high priority tracts, conserving habitat for hundreds of important wildlife species.

In Action: Protecting Alaska’s Bird Nesting Islands from Invasive Predators

Invasive species are negatively impacting Alaska’s island-nesting birds. Wherever ships have landed and stowaway Norway rats have escaped, they have become predators of eggs, young birds, and even adult birds that Alaska’s state wildlife action plan names as species of greatest conservation need, such as the common murre, black-legged kittiwake, least and crested auklets, and storm-petrels.

The Alaska wildlife action plan outlines proactive measures to prevent Norway rats from infesting islands through rigorous “rat-spill” procedures for shipwrecks, education of ship crews and removal of rats that arrive at harbors, warehouses, and other points of entry. The action plan further addresses conservation actions within bird nesting islands to monitor islands where invasive predators have been removed to detect if the birds have started nesting successfully again. The actions will help prevent these species from undergoing additional declines that could lead to these birds becoming endangered.

In Action: Pika Alert: Tracking Climate Change in Nevada

Since the 1990s, this engaging denizen of the mountain peaks has disappeared from nine of 25 research sites in the mountains of Nevada, California and Oregon, according to a recent U.S. Geological Survey study. The pika may be one of the first U.S. mammals to be impacted by global warming. Unlike other species that live at lower elevations, the pika cannot move higher to find cooler grounds that fit its needs because its home already lies at high elevations. The pika depends on insulating snows to survive the winter in its den, and in summer, it retreats to the rocks to stay cool. Without enough snow cover, the pika freezes in the winter, and if the rocks become too hot in summer, the pika succumbs to heat.

Tracking the long-term responses of the pika to global climate change is listed as a high priority research need in Nevada's Wildlife Action Plan, which also calls for assessments of the effects of increased access and recreation on alpine and tundra vegetation and wildlife species.

In Action: Montana: New Information Leads to Proactive Steps

Montana Fish, Wildlife & Parks biologists surveyed thousands of miles of prairie streams that had never been surveyed for fish. Crews explored the seemingly fishless streams and discovered close to 40,000 individual fish, with up to 10 different species at the average site. Most were minnows or small fish such as the brook stickleback, goldeye, emerald shiner, shorthead redhorse and sand shiner. The crew found a total of 48 species during the summer and 30 were native to Montana.



Mountain stream/Carl Heilman

Montana's wildlife action plan lists prairie streams as a community type of greatest conservation need. Armed with new knowledge of the rich wildlife present in these little-known streams, the action plan identifies proactive conservation steps with the support of public and private partners. For example, to prevent diverting and dewatering streams, the recommended action is to apply water conservation or flow management practices that will restore essential habitats. To make sure ranchers continue to have needed water for livestock during drought, the strategy is to increase stockwater wells in place of irrigation ditches. Sometimes, fairly simple changes in practices can make the key difference for wildlife survival.

“Like the resource it seeks to protect, wildlife conservation must be dynamic, changing as conditions change, seeking always to become more effective.”

– Rachel Carson

Measuring Success

The wildlife action plans begin with an assessment of the issues facing each state’s wildlife and then identify the full range of actions that are needed to prevent them from becoming endangered. The success of this approach hinges on taking one more step: evaluation. Once we have implemented a project to reintroduce sturgeon to a river system, protect an important parcel of habitat for bobcats, or restore a degraded freshwater marsh ecosystem, how do we know if our actions have had the desired effects? Are the projects and programs we are undertaking translating into benefits for targeted fish and wildlife? Are we using limited resources efficiently and effectively? Are we ultimately succeeding in preventing wildlife from becoming endangered? To answer these questions, the wildlife

action plans describe how each state will monitor the status of wildlife and the effects of conservation actions. By collecting and analyzing information on the status of wildlife and the lands and waters they need to survive, we can determine if our management actions are having the desired effects and what, if any, adjustments are needed to improve outcomes.

Wildlife monitoring activities range from the long-term collection of data to establish large-scale population trends, to focused investigations into the cause-and-effect results of specific management actions. Monitoring is also about keeping track of the activities, programs, and projects that each state is undertaking. Taken as a whole, the wildlife action plans embody a new, strategic approach to measuring conservation outcomes.



Pallid sturgeon/Louisiana DWF

Adaptive Management: Learning by Doing

There are many uncertainties in conserving and managing wildlife. While we know a lot about some animals and their habitats, we lack a complete understanding of the issues and solutions that are needed for every species and habitat. This is especially true when it comes to the state wildlife action plans. Because the action plans are focused on wildlife species that have received very little prior conservation attention, they identify thousands of species about which we have very little information. Similarly, we lack basic information on where some critical habitats occur and how these complex systems function.

In the face of incomplete information, the state wildlife action plans offer an adaptive management approach to conservation. This approach views conservation as a process of implementing conservation actions as practical experiments to test what we know about wildlife and habitats. By evaluating the outcomes of our actions, we can revise and improve our original conservation approaches in order to improve future outcomes. By working adaptively, we can still take action to conserve declining wildlife in the face of uncertainty. The more action we take, the more we improve our understanding of how we can ultimately bring about even better outcomes for fish and wildlife.

In Action: Unifying Information to Measure Outcomes in Utah

Managing information on wildlife and habitat condition and status is a core challenge to effectively measuring conservation outcomes. To support the imple-

mentation of their Wildlife Action Plan, the Utah Division of Wildlife Resources will link several existing databases with new systems specifically focused on Wildlife Action Plan priorities. These databases include several pre-existing individual species databases, the Utah Natural Heritage Program's rare species occurrence database, and a habitat monitoring database. All of these systems will be unified under an umbrella of a new master database that provides uniform codes to link species, habitat, and conservation action information together.



Trumpeter Swan/Wyoming GFD

Through these links, database users will be able to identify threats, proposed conservation actions, implemented actions, and, ultimately, the response of species and habitats identified as priorities in the Utah Wildlife Action Plan.

Working Together

Collecting information and tracking the results of conservation projects and programs can be expensive and resource-intensive. Even monitoring the needs of a few species in a small project can require a substantial investment of time and energy. Undertaking this effort for

thousands of species across entire states could quickly overwhelm any one agency that is working alone.

Instead of proposing extensive, independent new monitoring programs, the wildlife action plans place a strong emphasis on partnerships. By working together, across state boundaries and with federal agencies, nongovernmental organizations, and the private sector, we can conduct monitoring initiatives and build consistent and coordinated monitoring

programs that will be useful at multiple scales and for multiple purposes. For rare, wide-ranging wildlife that do not recognize political boundaries, multi-state and regional monitoring efforts may be vital to ensuring conservation success. Standardizing protocols and measures and improving data sharing among state agencies, federal agencies, and nongovernmental organizations will improve our collective ability to compare the effectiveness of strategies and programs.

In Action: Citizen Scientists Play a Vital Role in Monitoring Wildlife Diversity in Washington

Washington's wildlife action plan proposes developing a Biodiversity Index to track

long-term changes in wildlife and their habitats. The scientifically developed index will focus on the action plan's species of greatest conservation need, priority habitats and ecoregions. To help carry out the massive task of collecting this information, the Washington Department of Fish and Wildlife proposes a program of volunteer citizen scientists. The benefit of involving citizens is two-fold: it is cost-effective and it involves people in helping wildlife, which in turn builds conservation understanding and support.

In Action: Partnerships to Meet Monitoring Needs in Wisconsin

Although the Wisconsin Department of Natural Resources has the primary responsibility for managing and monitoring the state's wildlife and other natural resources, the job is too big to manage alone. Therefore, the WDNR is working with its many local, state and federal partners to tackle the monitoring of species of greatest conservation need and their habitats.

The WDNR is already taking some actions in working with partners on improving monitoring efforts in the state. The Wisconsin EcoAtlas is a web-based, searchable system that compiles existing inventory, monitoring and research projects from around the state with the goal of helping scientists and managers identify where work is already being done. It can link the partner with existing databases of information on biological diversity such as the Natural Heritage Inventory Portal and the Aquatic and Terrestrial Resource Inventory. Another ongoing effort is focusing on obtaining input from partners on improving the coordination of natural resources monitoring. The first step was the *Wisconsin Resource Monitoring Summit*. The Summit brought together individuals from sixteen local, state, regional and federal organizations to share information about monitoring programs and identify issues related to various elements of a monitoring program. A set of recommended actions and next steps from the Summit will help WDNR move forward with a coordinated framework for monitoring the state's natural resources.



Puget blue butterfly/Kelly McAllister, WA DFW

Taking Action

The wildlife action plans are already being implemented both by state wildlife agencies and their partners, including federal, state, and local governments, conservation groups, private landowners, and a variety of other individuals and organizations with an interest in wildlife. States are working with partners to develop shared priorities based on their wildlife action plans, and to adjust the wildlife action plans to local and regional scales. Implementation actions address problems or threats to habitats and species by creating partnerships, restoring habitats, monitoring species, and filling in data gaps. States developed a variety of approaches to taking action based on the issues they identified and the circumstances of each state. Implementation projects are built on a foundation of cooperative conservation that emphasizes the importance of species and habitat health and the prevention of problems, rather than regulatory fixes or top-down mandates.

initiative to restore habitat for birds of greatest conservation need, including the Henslow's sparrow. State biologists and mine regulators are teaming up to locate active surface mines that can be reclaimed in grass instead of trees. Since 90 percent of the state's grasslands are in private ownership, conserving and restoring these habitats takes the kind of strategic partnerships that are the hallmark of the state's action plan.

In Action: Restoring Sagebrush Communities in Utah

Shrubsteppe, which includes sagebrush, is a high priority for habitat conservation in the Utah Wildlife Action Plan. Wildlife species of conservation need that depend on sagebrush include Greater Sage-grouse, Gunnison's Sage-grouse, Brewer's Sparrow, Sage Sparrow, Sage Thrasher, and Pygmy Rabbit. Fire suppression and invasive species, such as cheatgrass, have impacted the health of sagebrush communities by altering the natural shrubsteppe plant composition. These factors have also decreased forage quality for cattle, which is an important component of Utah's rural economy.

Utah's Wildlife Action Plan provides new information pinpointing the sagebrush areas in greatest need of restoration and a better understanding of the intricacies of its wildlife inhabitants. The Utah Division of Wildlife Resources and its partners are taking action to rejuvenate sagebrush communities to support native species and Utah's economy. Reintroducing fire is not often an option, because high temperatures in thick

"It is just unbelievable to see the results that the Rich County Coordinated Resource Management group (a landowner/government partnership) has had in Rich County. I have seen landowners who would not give the time of day to [government agencies] say, 'well, what can we do for wildlife?' and on the other side, the government agencies have said, 'well, these are the benefits that will come to livestock [through habitat work to help wildlife].'"

– Bill Hopkin, Former Desert Land and Livestock Ranch Manager

Action Plans as a Common Platform for Action

The wildlife action plan provides a common platform for action and can be a tool for partners to use to develop projects based on shared priorities. Now, all those interested in wildlife can work toward the same goals and move from opportunistic conservation to coordinated, strategic conservation.

In Action: Pennsylvania: Restoring Mining Sites Revives Grassland Wildlife

In the mining country of western Pennsylvania, reclaimed strip mines will offer hope for the return of declining grassland birds that in turn attract avid birdwatchers to spend money in rural areas. Pennsylvania's wildlife action plan calls for a grassland mining reclamation



Sage grouse/USFWS, Dave Menke

stands of trees and old sagebrush would kill native seeds in the top soil layer. Instead, land managers are using heavy equipment to remove non-native plants, rejuvenate sagebrush stands, and

Taking Action with Public Lands Partners

Many western states have significant federal land ownership—National Forests, Bureau of Land Management, National Parks, National Wildlife Refuges, military bases and more. Public lands compose 83 percent of Nevada and 62 percent of Idaho. State wildlife action plans for these states emphasize coordination among public land managers and state wildlife agencies for the benefit of the wildlife resource.

In regions like the Southeast where public lands are few, the national forests, national parks and national wildlife refuges are critical sanctuaries for wildlife diversity. They also serve a growing number of outdoor recreationists. The U.S. Forest Service, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service have demonstrated their commitment to the action plans—both in helping develop them and supporting efforts to enact the strategies in every state.



Otter Release/Utah DWR

reseed native grasses and forbs. In addition, grazing practices are being altered to maintain quality shrubsteppe habitat. Using Utah's wildlife action plan to carry out sagebrush restoration to improve ecosystem health has the enthusiastic endorsement of landowners, conservationists, and local communities.

In Action: Working Together to Restore the American Eel in New York

The wildlife action plans are helping states improve coordination both beyond their borders and within their states. In New York, as a result of the development of the wildlife action plan, the biologists in different fields are now working together to restore the American eel. The American eel is an unusual species that breeds in the ocean and matures in freshwater. The eel is a declining and important species for commercial fisheries, as well as within ocean and freshwater food webs. Before the state wildlife action plan, freshwater biologists studied eels along the St. Lawrence River and marine biologists followed the eels in the Hudson and Long Island bay area. As a result of the planning process, the biologists are now working together to develop a statewide conservation strategy to restore the American eel.

In Action: Teaming Up to Clean Missouri's Waters

Missouri's wildlife action plan identifies Tumbling Creek Cave Ecosystem as one of its Conservation Opportunity Areas—landscapes where conservation actions will result in healthy habitats. Each conservation area has its own team of partners who drafted the profile and the resulting conservation tools.

The Quest for Knowledge to Take Action

During the development of the wildlife action plans, states identified information gaps on species and habitat distribution, status and trends along with other conservation needs. Filling data gaps is an important step in carrying out the wildlife action plans. Some gap analyses may identify a need for an appropriate future conservation action, while others may identify current limitations of time and resources.

Tumbling Creek Cave offers an excellent example of the solutions we can expect across the state in Conservation Opportunity Areas. Here, groundwater and cave conservation go hand in hand. Recent studies revealed that 88 percent of the

outdoor classroom/community space that will help local residents better understand the connections between surface and subsurface ecosystems in this important cave. The outdoor classroom vision fits within a larger strategy to expand envi-

ronmental education programs. Rather than taking a regulatory approach to mandate cleaner water, the solution is cooperative and beneficial to people and wildlife alike.

Working Across Boundaries

Wildlife knows no boundaries and often the quest to conserve wildlife requires working across ownership lines of public and private lands, as well as state and international borders. Neotropical migratory birds—from scarlet tanagers to Arctic terns—nest in the U.S. and winter south of the border. Salmon in the Pacific Northwest swim from the ocean up the Columbia River to spawning streams as far away as Idaho. Elk, bighorn sheep, and mule deer in the Rocky Mountain states descend from higher elevation National Forest lands to spend winters in the mild foothills.

Mark Twain school's sewage lagoon was leaking into the groundwater that feeds Tumbling Creek Cave—the most biologically diverse cave west of the Mississippi River and home to at least six animals recently discovered by science, such as the Tumbling Creek Cavesnail—the only known location in the world for this endangered species.

With the aid of State Wildlife Grants, local residents have come together to improve the sewage treatment system for the school. The next step will be to create an

That is why the Texas horned lizard, the mountain plover, and other grassland species in trouble. In western Oklahoma, the Conservation Reserve Program has played a tremendous role in preventing soil erosion by taking the most sensitive lands out of production. Farmers are compensated for not farming the lands. However, those lands traditionally were planted with exotic grasses. Oklahoma's wildlife action plan proposes to replant those lands with native grasses and bring back native wildlife.

In Action: Bringing Back Oklahoma's Grassland Wildlife

If a grassland looks like a grassland is it always suitable for wildlife? The answer might be no—if the grasses are not native.

“The future of three-quarters of Georgia’s woodlands rests in the hands of private non-industrial landowners. As development spreads throughout the state, it is critical to help private landowners conserve adequate, healthy forests for all of our wildlife and for the citizens of this state who cherish their natural lands so much. That’s why we took an active role in helping develop the Wildlife Action Plan.”

***– Steve McWilliams,
Georgia Forestry Association
Executive Vice President***



Prairie dogs/Oklahoma DWC

“When wildlife conservation is integrated with transportation planning, wildlife, motorists and taxpayers all win. Roads and wildlife are safer, maintenance costs may be reduced, and projects speed through the permitting and regulatory process.”

*– Gina Campoli,
Environmental Policy
Manager, VTrans*

In Action: Wildlife Workshops for Georgia’s Private Landowners

Offering guidance to private landowners to manage rare wildlife and sensitive habitats on their properties emerged as one of the top priorities in the Georgia wildlife action plan. The Georgia Department of Natural Resources worked with a variety of stakeholders including private forestland owners and managers throughout the state to develop the plan, and the agency strengthened its participation in the Georgia Sustainable Forestry Initiative Implementation Committee. Through that committee, Georgia DNR is putting its action plan on the ground by offering wildlife workshops and technical guidance for foresters, timber harvesters and private landowners.

In Action: Where the rubber meets the road—new partnership with Vermont’s highway department

Wildlife is literally on a collision course with the automobile. Vermont’s road system grew by more than 14,000 miles over the past 25 years and the number of vehicle miles traveled by Vermont residents is growing at seven times the population growth. Now, thanks to a partnership that has blossomed from the state wildlife action planning effort, the Vermont Fish and Wildlife Department and the Vermont Agency of Transportation (VTrans) have formed a wildlife steering committee to pinpoint wildlife travel corridors. They are planning for wildlife underpasses and overpasses at key road crossings that will cut down on mortality for black bear, bobcat and amphibians. The committee also steers highway development away from important habitats and corridors. State Wildlife Grants are helping fund improved culvert designs to allow fish passage—good news for lamprey and brook trout.

Taking Action to Help Private Landowners

Private landowners play a vital role in conserving habitats that support wildlife that are at risk of becoming endangered. Action plan tools emphasize incentives and other positive approaches that foster cooperation across public and private boundaries. States with high levels of private land ownership and few public lands strongly emphasize the role of private lands in their action plans, as well as the need to conserve key wildlife habitats that are not yet conserved.



Culvert assessment/C. Alexander

Carrying on the Legacy

A Call to Action

We now have the guidance we have long sought as a nation to make sure our wildlife conservation efforts are efficient and directed to the habitats, wildlife and actions of highest need. The wildlife action plans are the result of unprecedented cooperation. It is critical that the plans not sit on a shelf. The action plans collectively outline a national effort—we need to adequately fund them and to provide resources and commitments from partners to make them a reality.

Our nation has risen to the challenge to conserve our wildlife in great times of need. When our game species were in perilous straits, our country rallied to pass the 1937 Wildlife Restoration Act. We pulled together again to conserve our fisheries in 1950 for the Sport Fish Restoration Act. When we saw wildlife faced with extinction we passed the 1973 Endangered Species Act. Most recently, Congress approved the 2000 State Wildlife Grants program to promote a more comprehensive approach to wildlife conservation. Today, we stand at another juncture where acting now to fund the action plans requested by Congress will demonstrate our generation's commitment to keep wildlife from becoming endangered.

We have a clear strategy to prevent wildlife from falling through the cracks, by taking actions to restore the lands and waters that all wildlife depends on. State wildlife agencies will lead the way—working closely with the individuals, organizations and agencies that helped

develop plans to carry out the actions. The cooperation, collaboration and goodwill that are the stamp of every action plan also offer hope for positive solutions to balance growth and wildlife conservation. The action plans are full of examples of such solutions, and they give a strong indication of what we can expect ahead of us. Our country is poised to follow a plan in every state so that we can keep wildlife from declining to the brink of extinction. We know that once wildlife has slipped to dangerously low numbers, it is much more difficult and more costly to recover the species.

State Wildlife Grants Increases Capacity of States to Conserve Wildlife Diversity

State Wildlife Grants have significantly increased the capacity of states to keep wildlife from becoming endangered. Prior to State Wildlife Grants, in 1992 Montana had a wildlife diversity budget of \$130,000. In 2005, State Wildlife Grants alone provided more than \$1 million to Montana's wildlife diversity program. Alabama increased its wildlife diversity budget from \$462,000 in 1998 to more than \$2.5 million in 2004. The great majority of this was derived from State Wildlife Grants. While State Wildlife Grants have helped states make huge strides in wildlife diversity there is much more to be done. All states and territories have a great need for more funding to keep our wildlife populations healthy.

Carrying out state wildlife action plans will conserve wildlife and vital natural places, protecting clean water and air that are essential to our health, bringing peace and relaxation to our busy lives, and ensuring that nature continues to play a part of our important family traditions. As our communities grow, we will depend on the actions in the plans to fulfill our responsibility for the next generation to safeguard our precious birds, fish, mammals and other wildlife before they become more rare and more costly to conserve.

“The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased and not impaired in value.”

— Theodore Roosevelt



Louisiana Pine Snake/Louisiana DWF



Camp Marydale joins the Natural Areas Registry Program/Louisiana DWF

Teaming with Wildlife

Teaming with Wildlife is a national coalition of more than 3,500 organizations working together to prevent wildlife from becoming endangered by supporting increased state and federal funding for wildlife conservation, outdoor recreation and conservation education in every state. This coalition includes wildlife biologists, state wildlife agencies, conservationists, hunters, anglers, bird-watchers, businesses, and many others who support the goal of restoring and conserving our nation's wildlife. Visit Teaming for Wildlife at:

www.teaming.com



TEAMING WITH WILDLIFE
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State Agency Contacts

Alabama Department of Conservation & Natural Resources
(334) 242-3849, www.conservation.alabama.gov

Alaska Department of Fish & Game
(907) 465-614, www.adfg.state.ak.us

Arizona Game & Fish Department
(602) 789-3278, www.azgfd.com

Arkansas Game & Fish Commission
(501) 223-6305, www.agfc.com

California Department of Fish & Game
(916) 653-7667, www.dfg.ca.gov

Colorado Division of Wildlife
(303) 291-7208, www.wildlife.state.co.us

Connecticut Department of Environmental Protection
(860) 424-3010, www.dep.state.ct.us/burnatr

Delaware Division of Fish & Wildlife
(302) 739-9910, www.dnrec.state.de.us/fw

District of Columbia Natural Resources Division
Fisheries & Wildlife Branch
(202) 535-2273, www.dchealth.com/dcfishandwildlife

Florida Fish & Wildlife Conservation Commission
(850) 488-2975, www.MyFWC.com

Georgia Wildlife Resources Division
(770) 918-6401, www.georgiawildlife.dnr.state.ga.us

Hawaii Department of Land and Natural Resources
(808) 587-0401, www.hawaii.gov/dlnr

Idaho Fish & Game Department
(208) 334-5159, www.fishandgame.idaho.gov

Illinois Department of Natural Resources
(217) 785-0075, www.dnr.state.il.us

Indiana Department of Natural Resources
(317) 232-4091, www.in.gov/dnr/fishwild

Iowa Department of Natural Resources
(515) 281-5385, www.iowadnr.com

Kansas Department of Wildlife & Parks
(316) 672-5911, www.kdwp.state.ks.us

Kentucky Department of Fish/Wildlife Resources
(502) 564-7109 X333, www.kdfwr.state.ky.us

Louisiana Department of Wildlife and Fisheries
(225) 765-2623, www.wlf.louisiana.gov

Maine Department of Inland Fisheries & Wildlife,
(207) 287-5202, www.maine.gov/ifw/index.html

Maryland Department of Natural Resources
(410) 260-8549, www.dnr.state.md.us

Massachusetts Department of Fisheries, Wildlife &
Environmental Law Enforcement
(508) 792-7270, www.mass.gov/dfwele/dfw/dfw_toc.htm

Michigan Department of Natural Resources
(517) 373-2329, www.michigan.gov/dnr

Minnesota Department of Natural Resources
(651) 259-5180, www.dnr.state.mn.us

Mississippi Department of Wildlife, Fisheries & Parks
(601) 432-2001, www.mdwfp.com

Missouri Department of Conservation
(573) 522-4115, www.mdc.mo.gov

Montana Department of Fish, Wildlife & Parks
(406) 444-3186, www.fwp.mt.gov

Nebraska Game & Parks Commission
(402) 471-5539, www.ngpc.state.ne.us/default.asp

Nevada Department of Wildlife
(775) 688-1599, www.ndow.org

New Hampshire Fish & Game Department
(603) 271-3422, www.wildlife.state.nh.us

New Jersey Division of Fish and Wildlife
(609) 292-9410, www.state.nj.us/dep/fgw

New Mexico Game & Fish Department
(505) 476-8008, www.wildlife.state.nm.us

New York State Department of Environmental Conservation
(518) 402-8924, www.dec.state.ny.us

North Carolina Wildlife Resources Commission
(919) 707-0010, www.ncwildlife.org

North Dakota Game & Fish Department
(701) 328-6305, www.gf.nd.gov

Ohio Division of Wildlife
(614) 265-6304, www.dnr.state.oh.us/wildlife/default.htm

Oklahoma Department of Wildlife Conservation
(405) 521-4660, www.wildlifedepartment.com

Oregon Department of Fish & Wildlife
(503) 947-6044, www.dfw.state.or.us

Pennsylvania Fish and Boat Commission
(717) 705-7801, www.fish.state.pa.us

Pennsylvania Game Commission
(717) 787-3633, www.pgc.state.pa.us

Rhode Island Division of Fish & Wildlife
(401) 789-3094, www.dem.ri.gov/index.htm

South Carolina Department of Natural Resources
(803) 734-4007, www.dnr.sc.gov

South Dakota Game, Fish and Parks Department
(605) 773-3387, www.sdgifp.info/Index.htm

Tennessee Wildlife Resources Agency
(615) 781-6552, www.state.tn.us/twra/index.html

Texas Parks & Wildlife Department
(512) 389-4802, www.tpwd.state.tx.us

Utah Division of Wildlife Resources
(801) 538-4703, www.wildlife.utah.gov/index.php

Vermont Department of Fish & Wildlife
(802) 241-3730, www.vtfishandwildlife.com

Virginia Department of Game & Inland Fisheries
(804) 367-9231, www.dgif.virginia.gov

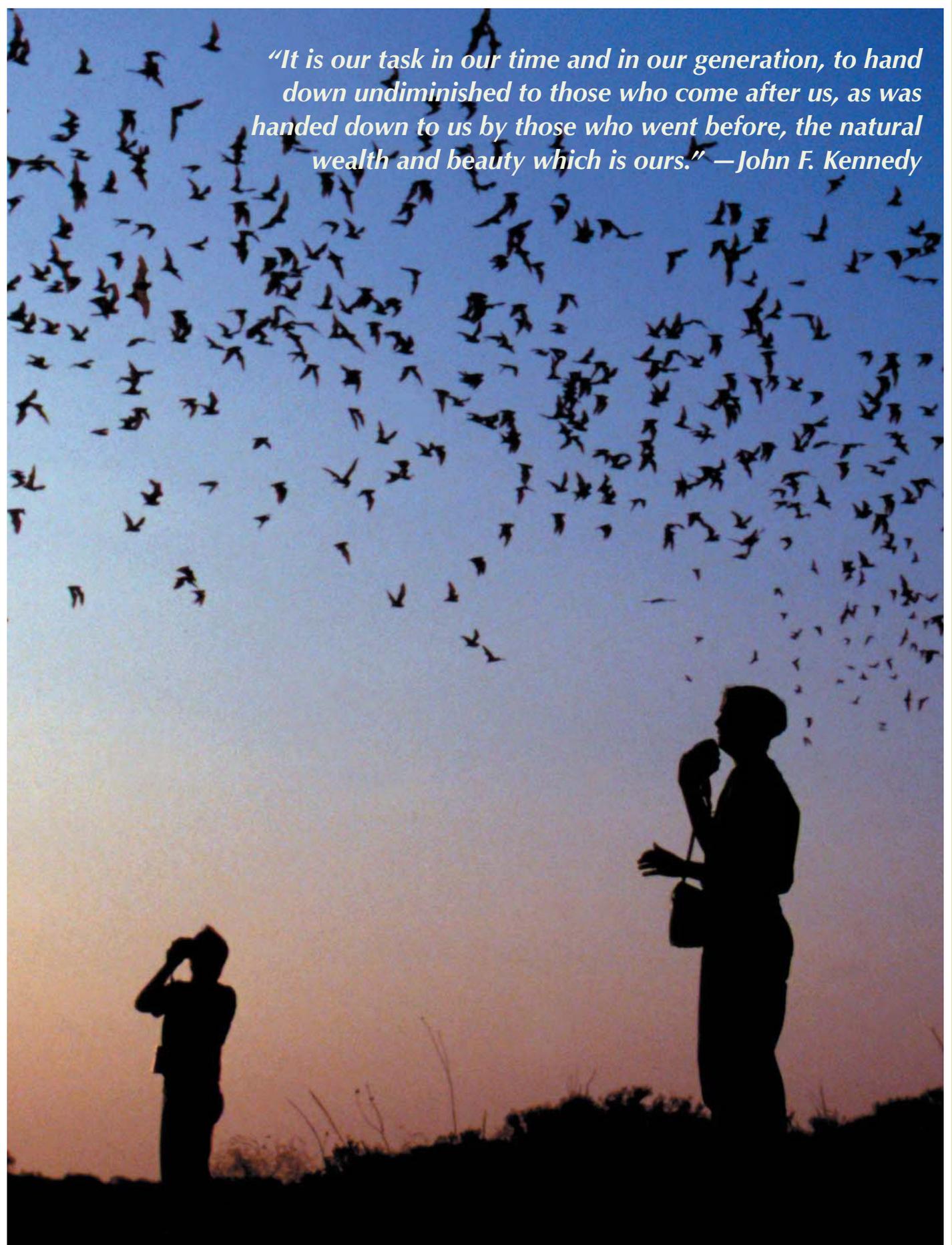
Washington Department of Fish and Wildlife
(360) 902-2225, www.wdfw.wa.gov

West Virginia Division of Natural Resources
(304) 558-2771, www.wvdnr.gov

Wisconsin Department of Natural Resources
(608) 266-2621, www.dnr.state.wi.us

Wyoming Game & Fish Department
(307) 777-4501, www.gf.state.wy.us

“It is our task in our time and in our generation, to hand down undiminished to those who come after us, as was handed down to us by those who went before, the natural wealth and beauty which is ours.” — John F. Kennedy





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