

Wisconsin Wildlife Action Plan

What is a wildlife action plan?

Congress asked each state to develop a wildlife action plan, known technically as a comprehensive wildlife conservation strategy. These proactive plans examine the health of wildlife and prescribe actions to conserve wildlife and vital habitat before they become more rare and more costly to protect.

Wisconsin snapshot

Geography: Wisconsin is bordered on the east and north by Lakes Michigan and Superior, on the west by the St. Croix and Mississippi rivers, and on the south by a sea of rolling prairie. Moreover, the state sits at the confluence of three great ecoregions--northern boreal forests, eastern deciduous forests and tallgrass prairies to the south and west.

Landscape: The major issues faced by federal, state, county, municipal, tribal and private land managers are habitat loss and fragmentation, the introduction of non-native plants and animals, and land use practices that reduce natural variety on the landscape. Land managers at all levels work together and with land trusts and other conservation organizations to protect, manage, and enhance the state's natural resources.

Wildlife: There are 556 wildlife species native to Wisconsin, the majority (51%) of them birds. Among other species, Wisconsin is home to lake sturgeon, bobolinks, wood turtles, American martens,

Karner blue butterflies and 51 species of mussels.

Wisconsin's planning approach

From the beginning, the Wisconsin Department of Natural Resources' guiding philosophy was to create a Strategy for



SGCN - Eastern Box Turtle, Terrapene ornata/WDNR

Wisconsin that complements other existing conservation plans and encourages the involvement of all agencies, organizations, and private individuals. Technical consultants, species experts and other individuals from within and outside of the Department worked together

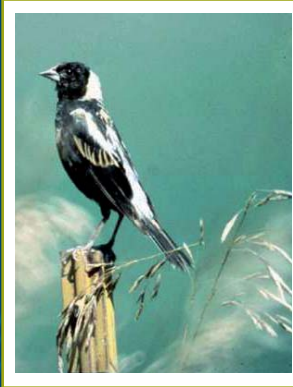
in interactive teams to develop Wisconsin's Strategy. This approach optimized the efficiency of the process and made the best possible use of the strengths possessed by each participant. Stakeholders endeavored to make the Strategy dynamic, able to adapt both to changing conditions over time and to feedback gained after it is implemented. The Strategy was developed from a landscape-scale perspective rather than a single- or even multi-species

"Wisconsin's Strategy takes a thorough look at the animal species that are part of Wisconsin's natural heritage, identifies those that most need our attention, and provides a roadmap of conservation actions that we can take to ensure that Wisconsin's natural capital is preserved. This Strategy and its road map are the next steps in an important journey to preserve Wisconsin's biological diversity."

—Wisconsin Governor Jim Doyle



approach. The organization of the final document and the Conservation Actions both reflect this broad view.



Bobolink, *Dolichonyx oryzivorus*/WDNR

Primary challenges to conserving wildlife in Wisconsin

Threats to invertebrates revolve around a general lack of knowledge about the basic biology of species, which leads other issues, including extensive public misunderstanding about what invertebrates are and the role they play in the environment, and the lack of readily available references to aid in species identification.

Three issues were common to all four of the vertebrate groups: habitat loss, invasive species, and pollution. Habitat loss includes habitat conversion (e.g., to row crops, tree plantations, shoreline modification), habitat degradation (e.g., runoff and sedimentation from housing develop-

ments entering streams), and habitat fragmentation (e.g., bisecting large blocks of forest with roads). Invasive species include both plants and animals that tend to dominate landscapes to the exclusion of all others (e.g., purple loosestrife, buckthorn, Asian carp), as well as, in the case of non-native animals, those that prey on or parasitize native species (e.g., feral cats). Pollution threatens wildlife directly through the sedimentation of spawning beds or the bioaccumulation of toxins in fish and birds, and indirectly by affecting



Piping Plover nest enclosure, Chequamegon Point, Lake Superior/WDNR

“The approach taken by the Department was thorough and comprehensive, and the involvement of an external team strengthened the effort tremendously. Having this robust Plan in place positions Wisconsin well for the future to address wildlife species conservation needs.”

– Noel Cutright
Senior Scientist
WE Energies

| Wildlife | Total number of species | Species of conservation need* | Threatened/ endangered** |
|-----------------------------|-------------------------|-------------------------------|--------------------------|
| VERTEBRATES | 556 | 152 | 49 |
| Birds | 284 | 84 | 24 |
| Fish | 147 | 30 | 13 |
| Mammals | 69 | 14 | 2 |
| Reptiles and Amphibians | 56 | 24 | 10 |
| INVERTEBRATES | Unknown | 530 | 42 |
| Insects | 20,000-40,000 | 450 | 20 |
| Non-insect Arthropods | 16,000-25,000 | 22 | 22 |
| Non-arthropod Invertebrates | 297 | 58 | n/a |

• Two methods of identifying SGCN were used, one for vertebrates and another for invertebrates. General guidelines for both methods were to evaluate all native species using existing data; include species for which good data currently exist and document the rationale used to select those species; use objective, straightforward and scientifically defensible methods that could be easily peer reviewed and readily replicated in future Strategy updates; and consider habitat at a broad scale in order to benefit multiple species.

• Our criteria for selecting SGCN included relative abundance, population trends, and threats to successful breeding of the species both within Wisconsin and across the species' entire range, along with the geographic extent of the species' breeding distribution. From these criteria we developed a numerical ranking system, and the top ranked species were included as SGCN.

Wildlife highlights

| Highlight habitats | Wildlife (examples) | Issue (examples) | Action (examples) |
|--|---|--|---|
| Northern Mesic Forest Ownership: Private-industrial; Federal, state, tribal, and county government; some private-non-industrial. | <ul style="list-style-type: none"> Northern goshawk Wood turtle American marten | <ul style="list-style-type: none"> Large contiguous forest patches and old forests are under-represented. Conifers (eastern hemlock, eastern white pine, and minor components of white spruce, balsam fir, and northern white cedar) are especially under-represented in the forest canopy. Simplification of the species composition of the forest is taking place, with sugar maple increasing at the expense of other tree species. | <ul style="list-style-type: none"> Maintain large forest blocks and increase connectivity between blocks where possible. Work toward a balanced mosaic of age-classes of trees. Encourage regeneration or reestablishment of eastern hemlock, other conifers, yellow birch, and Canada yew where appropriate. |
| Oak Barrens Ownership: Largely private, but extensive state and county lands. | <ul style="list-style-type: none"> Sharp-tailed grouse Prairie racerunner Franklin's ground Squirrel | <ul style="list-style-type: none"> Lack of fire allows conversion of barrens to forest, while too much burning may result in lower species diversity and the elimination of some species. Invasive plants such as spotted knapweed and exotic spurge are an existing serious threat. | <ul style="list-style-type: none"> Encourage the use of prescribed fires along with mechanical brush removal and compatible forestry practices to maintain oak barrens. Develop educational tools and demonstration areas that promote the benefits of prescribed fire and address the public's concerns about liability issues with prescribed fire. Follow existing WDNR guidance to minimize potential negative impacts on rare species. Continue and support research to find biological control agents for invasive plants. Control the spread of new invasive plants, and attempt to identify and eliminate infestations when they are small. |
| Warmwater Rivers Ownership: All waters are public property of the state, but ownership along the shore-lines spans the entire spectrum of public and private. There is Federal management of some river-ways. | <ul style="list-style-type: none"> Canvasback Lake sturgeon Mudpuppy | <ul style="list-style-type: none"> Non-point source pollution resulting from urban and agricultural runoff in the watershed. Dams have eliminated riverine habitat, blocked migration routes, fragmented populations, and created polluted sediments at levels that are sometimes harmful to fish and other aquatic species. | <ul style="list-style-type: none"> Improve watershed land-use practices to reduce non-point source pollution. Remove dams (as has been done along the Baraboo River (Sauk County), the lower Milwaukee River (Milwaukee County) and other waterways) or install effective fish passage at dams to partially mitigate dam impacts. |

Recommended actions to conserve Wisconsin's wildlife



Prescribed burn/TNC

“With many of Wisconsin’s natural resources under private ownership, the state needs partners to carry out its mandate. Development of this Strategy by itself reflects the ability of the Department to build these partnerships, and the interest of many organizations and individuals to work on this project.”

*– Peter T. Murray
Executive Director
Wisconsin Association of
Lakes*

the invertebrate prey of fish and mammals or increasing the vulnerability of affected species to diseases and predation.

Working together for Wisconsin’s wildlife

Public outreach began with the creation of a mailing list that eventually grew to include 600 people and organizations. Using this list, individuals, organizations, and agency staff from across Wisconsin were invited to participate in developing the plan. They were given background information about the need for the plan, as well as a description of the planning process, the required elements of the plan, and the State Wildlife Grant program. An ‘Advisory Team’ was formed to oversee the entire planning process.

This team included representatives from the Wisconsin Department of Transportation, the Wisconsin Association of Lakes, the Great Lakes Indian Fish and Wildlife Commission, WE Energies, the U.S. Forest Service, the Ruffed Grouse Society, Trout Unlimited, and the Milwaukee Public Museum. Updates, announcements, and information were posted on a website, issued through press releases, and direct-mailed to many interested individuals and groups. Six public meetings held around the state in January provided a forum for presenting Wisconsin’s Species of Greatest Conservation Need, laying out the timeline for completing the plan, and soliciting input on threats and recommended conservation actions for species and their habitats from more than 340 attendees. The draft Plan was reviewed by the public during June and July of 2005.



Oak Barrens Habitat, Juneau Co./Armund Bartz

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