

2015

M A S S A C H U S E T T S
STATE WILDLIFE ACTION PLAN



MASSACHUSETTS DIVISION OF
FISHERIES & WILDLIFE

DEPARTMENT OF FISH & GAME
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENT

Foreword



On behalf of the Massachusetts Division of Fisheries and Wildlife, I am pleased to present the 2015 update to the Massachusetts State Wildlife Action Plan, as required by Congress. This Plan presents the 570 Species of Greatest Conservation Need in the Commonwealth, the 24 types of habitat that support these species, and the actions necessary to conserve them.

The citizens of Massachusetts have a long history of working together to conserve our state's biodiversity. The state Fisheries Commission, the predecessor to the current Division, was permanently established almost 150 years ago, in 1886. The first land trust in the country was The Trustees of Reservations, still a highly successful force in Massachusetts conservation today. The Massachusetts Endangered Species Act, one of the strongest in the country, was enacted a quarter-century ago. Today, more than 25 % of the state's acreage is protected from development, an astounding achievement in such a densely populated state.

With so much land protected, our focus going forward now moves to an equal emphasis on land acquisition and the management of these conserved lands. The Division itself has made a strong commitment to habitat management on our own 200,000 acres, particularly on the areas—the Key Sites—with the highest and best concentrations of rare species and other elements of biodiversity. As well, we intend to assist our dedicated conservation partners in determining appropriate habitat management on their own lands.

It is the continued, strong dedication of the Commonwealth's citizens to our natural resources that has made these accomplishments possible, and it is in concert with our many conservation partners that we intend to move forward with the goals of this Plan.

A handwritten signature in black ink that reads "Jack Buckley". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Jack Buckley, *Director*
Massachusetts Division of Fisheries and Wildlife

MASSACHUSETTS
**STATE WILDLIFE
ACTION PLAN**
2015



MASS**WILDLIFE**

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Executive Summary

The goal of the Massachusetts State Wildlife Action Plan (SWAP) is to keep common species common and to conserve the breadth of biodiversity of the Commonwealth. The SWAP must address eight required elements described by the U. S. Congress and must be approved by the Regional Review Team (RRT) from the U.S. Fish and Wildlife Service (USFWS). The RRT consists of two members: the Assistant Regional Director from the USFWS, or the Wildlife and Sport Fish Restoration (WFSR) Chief or a designee; and a State Director. The RRT provides a recommendation to the USFWS Director. The Director approves the SWAP. This approval is necessary for the Massachusetts Division of Fisheries and Wildlife (DFW) to receive funds through the State Wildlife Grant Program. The eight required elements, and a brief description of how this Plan has addressed each, are included at the end of the Executive Summary.

The SWAP is a required update of the 2005 Massachusetts document, which was titled the *Massachusetts Comprehensive Wildlife Conservation Strategy*. In the current SWAP, we note the processes used to provide input into the development, review, and revision of the Plan, including comments from 445 individuals and organizations.

Major updates in the SWAP include:

- Greater discussion of climate-change impacts to Species of Greatest Conservation Need (SGCN) and their habitats;
- Identification of accomplishments towards reaching the goals of the 2005 SWAP;
- Additions and deletions to the list of SGCN, including, for the first time, state-listed and uncommon plants;
- Increased recognition of the importance of regional conservation needs and the role for the DFW in meeting those needs; and
- *BioMap2*, an update and enhancement to the earlier BioMap and Living Waters projects. *BioMap2* is the conservation footprint needed to conserve the biodiversity of the Commonwealth, with an emphasis on SGCN and on climate change.

The SWAP is organized around 24 habitat types ranging from large-scale habitats such as Large Unfragmented Landscape Mosaics, to medium-scale habitats like the state's Large- and Mid-sized Rivers, to small-scale habitats such as Vernal Pools. Information for each habitat type includes a description of the habitat; the suite of SGCN that is associated with that habitat; a map showing the distribution of the habitat type across the state, where available; a description of the problems and threats facing the habitat and the species in it; and a list of the conservation actions needed to conserve the habitat.

We identified 287 animal and 283 plant SGCN for the SWAP. These 570 species are assigned to one or more of the 24 habitats, if the habitat was essential to the survival of the species. The list of SGCN includes:

- All of the federally listed species in the state;
- All of the state-listed Special Concern, Threatened, and Endangered species;
- Globally rare species;
- Species which are listed as being of regional concern as determined by the Northeastern Association of Fish and Wildlife Agencies;
- Species of high regional responsibility that occur in Massachusetts;
- Other species that are of conservation concern within the Commonwealth.

A species summary is provided for each of the SGCN. This summary includes the most recent distribution information in map form, where this information is available, along with a life history narrative and a listing of key

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threats facing the species and their habitats, including climate change impacts. We describe the determinants and process used to identify and prioritize the 570 SGCN, including both plants and animals.

Threats like climate change, which were only touched on in the 2005 SWAP, have assumed a much greater importance in this update of the SWAP. Additionally, while habitat loss remains a serious threat to SGCN, the equally important threats from habitat conversion due to natural succession, invasive species, and reduction and elimination of natural disturbances highlight the need for habitat management of conserved lands to meet the goals of the SWAP.

Emerging issues, such as unexpected outbreaks of pathogens or newly arrived invasive species, will occur and indeed should be expected. The detection of what came to be called White-Nose Syndrome in bats and the damage that the disease cause to our native bat species soon after the completion of the SWAP in 2005 highlights the need to always be aware for new issues that will affect SGCN. These emerging issues will be addressed through an adaptive management framework as the issues arise.

The actions identified in the SWAP to ensure the conservation of populations of SGCN fall into six broad categories: conservation planning, land protection, habitat restoration and management, environmental regulation, surveys and inventories of the SWAP species and habitats, and public outreach.

Finally, we describe the current and planned monitoring actions that will tell us and our partners if we are achieving our goal of conserving these SGCN and their habitats, and how we will adapt conservation actions over time to allow us to reach our goals.

The goals of this SWAP cannot be met by the actions of the DFW alone, although DFW is responsible for producing the SWAP. Actions that the DFW has taken with partners to create products like *BioMap2* provide the guidance for other conservationists across the state to act independently but in concert to meet the goals of the SWAP. We expect to continue to accomplish conservation of the SWAP species and habitats by coordination and partnerships, through the implementation of Farm Bill conservation programs which are guided by the SWAP and by continuing to work in partnership with many governmental and nongovernmental agencies and organizations on all levels.

Where the Eight Required Elements can be Found

In order to receive funds through the State Wildlife Grant Program, each state must complete a State Wildlife Action Plan (SWAP) which will address the species the state fish and wildlife agency deems “in greatest need of conservation”, while addressing the full array of wildlife and wildlife–related issues. The SWAP must also address all of the eight elements required by the Congress. The eight elements are:

1. Information on the distribution and abundance of species in greatest need of conservation, low and declining populations as the State Fish and Wildlife Agency deems appropriate, that are indicative of the diversity and health of State’s Wildlife.

This information can be found in the SGCN fact sheets linked in Appendix D, which includes a narrative of the life history, key threats, and a statewide distribution map. The species are also listed in the Table of Species in Greatest Need of Conservation, Table 3-2.

2. Descriptions of locations and relative condition of key habitats and community types essential to conservation of those species identified in item 1.

This information is listed for each of 24 habitat types in Chapter 4, SWAP Habitats. This section includes a narrative describing each habitat, a list of Species in Greatest Need of Conservation in that habitat, a narrative linking the species to how they use the habitat, and, in most cases, a statewide distribution map of the habitat.

3. Description of problems which may adversely affect species identified in item 1 or their habitats, and priority research and survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and their habitats.

Habitat-specific information is found in Chapter 4, SWAP Habitats, which includes a narrative of the threats facing each habitat and associated species and a listing of the proposed conservation strategies, including research needs and monitoring plans.

4. Description of conservation actions proposed to conserve the identified species and habitats and priorities for implementing such actions.

In Chapter 5, we describe and summarize the range of conservation strategies proposed for the SWAP species and habitats. Chapter 4, SWAP Habitats, lists the specific conservation strategies for each of the 24 habitats and their associated species.

5. Proposed plans for monitoring species identified in item 1 and their habitats, for monitoring the effectiveness of the conservation actions proposed in item 4, and for adapting these conservation actions to respond appropriately to new information or changing conditions.

The proposed monitoring plans are described within Chapter 6, for each of the 24 habitat types and their associated species.

6. Description of procedures to review the strategy at intervals not to exceed ten years.

This information is found in Chapter 1, Section C, Schedule of SWAP Review and Revision.

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7. **Plans for coordinating the development, implementation, review, and revision of the plan with Federal, State, and local agencies and Indian tribes** that manage significant land and water areas within the State or administer programs that significantly affect the conservation of identified species and habitats.

The SWAP was first drafted by Massachusetts Division of Fisheries and Wildlife staff and then made available to all our state, federal, local and tribal partners and to the general public for their review and comment (see Chapter 1). The SWAP was amended as appropriate based on these comments. We expect the review and revision process to follow roughly the same process (see Chapter 1). One of the primary goals of the SWAP is to provide information and guidance to our partners regarding the conservation of habitats and species identified in the SWAP. Implementation of these conservation strategies by all conservation partners will be encouraged. We have longstanding relationships with these partners, which leads us to believe that these priorities are shared priorities will be implemented as is feasible. The Division of Fisheries and Wildlife operates in the Department of Fish and Game which is part of the Executive Office of Energy and Environmental Affairs (EOEEA). EOEA is the Secretariat which contains all of the environmental resource agencies of state government and coordinates the overall activities of these line agencies. EOEA has been aware of the development of the SWAP throughout the process through regular staff briefings and directly from the Fish and Wildlife Board.

8. Congress also affirmed through this legislation that **broad public participation is an essential element of developing and implementing these plans**, the projects that are carried out while these plans are developed, and the Species in Greatest Need of Conservation that Congress has indicated such programs and projects are intended to emphasize.

Public participation in developing the SWAP took many forms. The Massachusetts Division of Fisheries and Wildlife operates under the direction of an appointed Fish and Wildlife Board. An appointed Natural Heritage and Endangered Species Advisory Committee advises the Division of Fisheries and Wildlife director on rare species issues. The SWAP has been developed with the assistance of this public Board and Committee, along with the public at large and other resource groups and agencies that provided comment during the review process. An overview of the process we used for garnering broad public support for the conservation strategies described in the SWAP is set forth in Chapter 1.

Summary of Major Changes since the 2005 SWAP

Major changes to the list of Species of Greatest Conservation Need (SGCN) include:

- Plants were added for the first time – 283 species;
- Bees were added for the first time – 9 species;
- 36 birds were newly added;
- 31 species were dropped from the list;
- The total number of SGCN more than doubled, from 262 to 570.

Pathogens are emerging threats to several groups (bats, amphibians, bees, and rattlesnakes).

The existing and potential effects of climate change are undeniable, and both predictable and unpredictable; an entire chapter has been added to discuss ongoing climate-change projects.

Habitat restoration and management are now equally as important as land protection, since a quarter of the state and half of the most important acreage for biodiversity are now protected from development.

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