



MASSWILDLIFE

DIVISION OF FISHERIES & WILDLIFE

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How and why the MESA Priority Habitat map changes

- **Changes to the Massachusetts Endangered Species Act (MESA) List and observation records of MESA-listed species**

Changes to the MESA List – The MESA List is periodically re-evaluated, resulting in changes over time to reflect the changing conservation status of species in the state. New Priority Habitats are *added* when a species is added to the MESA List, and Priority Habitats are *removed* when a species is removed from the MESA List. The Division’s most recent MESA List changes (published on January 10, 2020) included the addition of 9 species and the removal of 5 species.

New observation records of MESA-listed species – A Priority Habitat is added for an area with new observation records that demonstrate presence of a population of a MESA-listed species that was either undocumented or inadequately documented prior to the publication of the new edition of the Natural Heritage Atlas.

Older observation records “expire” – Per the MESA regulations (321 CMR 10.12(6)(3)), a Priority Habitat is removed if it was delineated based on observation records that are more than 25 years old.

- **Current scientific knowledge of habitat utilization**

The scientific understanding of the habitat requirements and seasonal movements of many MESA-listed species improves with time, as many of these species are the subjects of ongoing research by MassWildlife staff and scientists working in universities or non-governmental organizations. Each new study published in conservation biology literature may, as appropriate, result in updated mapping of Priority Habitat to reflect current scientific knowledge.

- **Evaluation of regulatory outcome**

Updating of Priority Habitat includes evaluation of the effectiveness of regulatory review under the MESA for conservation of individual species. The DRAFT Priority Habitat map has been revised to exclude areas where regulation has been determined to be less effective in the conservation of the species for which these excluded areas were previously mapped.

- **Current aerial photography and GIS data**

In updating Priority Habitat, MassWildlife biologists utilize current technology and spatial (GIS) data to delineate habitats. Continual improvement of these tools and data allows more accurate and precise evaluation of habitat suitability for MESA-listed species, relative to new development and other changes in land use and vegetation. The DRAFT Priority Habitat map is based on statewide aerial photography from 2019.

- **Exclusion of sites of poor viability**

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Particularly for Species of Special Concern, MassWildlife excludes from Priority Habitat areas where a population of a MESA-listed species has a poor probability of long-term persistence based on the size and condition (quality) of the habitat in such areas.

Conclusion

The DRAFT Priority Habitat map is the best habitat mapping possible based on current scientific knowledge and available data. While not including all habitat utilized by MESA-listed species, the DRAFT Priority Habitat map does include the most important areas for supporting the survival and reproduction of animal and plant species currently listed under the MESA. As with the 15th Edition, MassWildlife will continue to utilize new technology and scientific knowledge to revise and update the MESA Priority Habitat map with each new edition of the Natural Heritage Atlas.