Threats and Conservation Actions
State Wildlife Action Plan Public Survey

Threats

Agricultural and Forestry Effluents	Industrial and Military Effluents
Air-borne Pollutants	Invasive Non-native-Alien Species-Diseases
Annual and Perennial Non-timber crops	Lack of Knowledge
Changes in Geochemical Regimes	Livestock Farming and Ranching
Changes in Precipitation and Hydrological Regimes	Logging and Wood Harvesting
Changes in Temperature Regimes	Marine and Freshwater Aquaculture
Commercial and Industrial Areas	Mining and Quarrying
Dams and Water Management – Use	Problematic Native Species-Diseases
Domestic and Urban Waste Water	Problematic Species-Diseases of Unknown Origin
Fire and Fire Suppression	Recreational Activities
Fishing and Harvesting of Aquatic Resources	Renewable Energy
Garbage and Solid Waste	Roads and Railroads
Gathering Terrestrial Plants	Shipping Lanes
Habitat Shifting or Alteration	Tourism and Recreational Areas
Housing and Urban Areas	Utilities and Service Lines

Conservation Actions

Coastal and Marine Habitats

1. Create a coastal acidification budget to determine which factors (i.e. point, non-point source pollution, atmospheric CO2, etc.) are most important in driving acidification nearshore in intertidal and subtidal habitats
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3. Continue monitoring potential and active aquaculture sites with a focus on SGCN and important habitats
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5. Develop monitoring systems and rapid response plans to prevent the colonization of invasive/problematic species and diseases in intertidal, subtidal, and tidal marsh habitats
6. Work with municipalities to identify important SGCN nesting and migratory areas in coastal habitats during comprehensive planning
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8. Provide outreach to recreationalists regarding effects of human disturbance on beach nesting birds and roosting/feeding shorebirds
9. Work with land conservation organizations and private landowners to conserve tidal marshes, adjacent uplands, and marsh migration corridors
10. Implement predator control programs near SGCN nesting areas in rocky coast habitats
11. Continue/expand marine debris recovery programs in intertidal and subtidal habitats and education to fishermen
12. Decommission remnant or unused roads and other structures in or near tidal marsh, intertidal, and subtidal habitats
13. Encourage partnership projects among transportation agencies, utility companies, etc. to facilitate fish passage and maintain connectivity in or near subtidal, intertidal, and tidal marsh habitats especially in cases where structures have different purpo
14. Find ways to support culvert replacement in or near intertidal, subtidal, and tidal marsh habitats using best management practices
15. Time dredging projects in subtidal and tidal marsh habitats to minimize harm to SGCN based on migration and spawning cycles

Conservation Actions

Freshwater Aquatic Habitats

1. Continue efforts to identify barriers to aquatic organism passage

2. Identify funding to construct passage structures at dams, and implement these passage structures.
3. Research fish behavior and movement to identify ways to improve the design of fish passage structures
4. Train new and existing engineers on proper ways to design fish passage structures through universities and training programs
5. Conduct research on the economic impact of invasive species, mitigation strategies, and containment strategies in aquatic ecosystems
6. Identify and conserve coldwater resilient areas and waterbodies that are not amenable to the spread of invasive species
7. Use habitat modifications to reduce the vulnerability of habitats to species invasions, such as returning impoundments to free-flowing river conditions
8. Continue Stream Smart general and technical training
9. Encourage alternative road routes that do not interfere with streams or riparian areas
10. Encourage septic inspections when a house sells to ensure that it is functioning properly
11. Enhance coordination of agencies and NGOs to facilitate road stream crossing improvements
12. Provide outreach and education to town planning boards on the importance of maintaining riparian vegetation to prevent declines in water quality
13. Provide technical assistance, financial incentives, and other support for municipalities implementing road stream crossing improvements

Conservation Actions

Terrestrial & Freshwater Wetland Habitats

1. Broaden public outreach to include information on suites of SGCN species (e.g., not just New England Cottontail) that are declining due to lack of suitable grassland, shrub, or early successional habitat
2. Encourage conservation of freshwater marshes and other high value SGCN wetland habitats using a variety of approaches such as acquisitions, easements, and incentives
3. Encourage conservation of high value vernal pool complexes using a variety of voluntary approaches through Beginning with Habitat, MNRCP, and Public Lands management

4. Support the continuation of long-term monitoring of SGCN habitat condition and forest structure in northern forests and swamps through programs such as the annual Forest Inventory and Analysis, and MNAP's ecological reserve continuing forest inventory.
5. Support incentives for landowners to manage for the retention of SGCN habitat in forests and swamps statewide, such as SGCN habitat tax reduction.
6. Encourage conservation of high value vernal pool complexes using a variety of voluntary approaches through Beginning with Habitat, MNRCP, and Public Lands management
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9. Encourage conservation of high value vernal pool complexes using a variety of voluntary approaches through Beginning with Habitat, MNRCP, and Public Lands management
10. Use event-specific (e.g., big night, turtle nesting) outreach to draw greater public attention to vernal pools
11. Support the continuation of long-term monitoring of SGCN habitat condition and forest structure in northern forests and swamps through programs such as the annual Forest Inventory and Analysis, and MNAP's ecological reserve continuing forest inventory.
12. Support habitat management incentive programs by providing technical assistance to land managers and landowners for SGCN habitat management in grasslands, shrublands, and early-successional habitats
13. Continue monitoring for invasive and problematic species and diseases in forests and swamps statewide.
14. Work with partners to continue on-going invasive species eradication/early identification efforts in south central forest and swamp SGCN habitats
15. Target invasive plant species control at high value wetlands on public and other conservation lands
16. Support the continuation of monitoring for invasive and problematic species and diseases in northern forest and swamps and south-central forests and swamps
17. Support statewide invasive species education programs and monitoring and control of invasives in floodplain forests

18. Continue work with forestry community on vernal pool Habitat Management Guidelines
19. Encourage conservation of high value vernal pool complexes using a variety of voluntary approaches through Beginning with Habitat, MNRCP, and Public Lands management
20. Support the continuation of long-term monitoring of SGCN habitat condition and forest structure in northern forests and swamps through programs such as the annual Forest Inventory and Analysis, and MNAP's ecological reserve continuing forest inventory.
21. Support incentives for landowners to manage for the retention of SGCN habitat in forests and swamps statewide, such as SGCN habitat tax reduction.
22. Support habitat stewardship incentive programs by providing needed technical assistance for SGCN habitat management in floodplain forests, such as NRCS projects.
23. Account for the negative impacts to SGCN habitats caused by deer in southern Maine floodplains when doing deer management planning.
24. Continue monitoring for invasive and problematic species and diseases in forests and swamps statewide.
25. Support the continuation of monitoring for invasive and problematic species and diseases in northern forest and swamps and south-central forests and swamps
26. Develop outreach approaches and materials for municipal planners and land trusts on the important wildlife values of pine barrens and the need for fire or mechanical management to perpetuate these habitats, through programs such as beginning with habitat
27. Support incentives for landowners to manage for the retention of SGCN habitat in forests and swamps statewide, such as SGCN habitat tax reduction.
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