

**Wisconsin's Wildlife Action Plan (2005-2015)
Priority Conservation Actions & Conservation Opportunity Areas**

NORTHERN HIGHLAND ECOLOGICAL LANDSCAPE

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HIGH PRIORITY SGCN AND NATURAL COMMUNITIES

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|---------------------------------|----------------------------|----------------------------------|
| ➤ Bald Eagle | ➤ Veery | ➤ Bina Flower Moth |
| ➤ Black-backed Woodpecker | ➤ Least Darter | ➤ Bog Fritillary |
| ➤ Boreal Chickadee | ➤ Longear Sunfish | ➤ Bog Copper |
| ➤ Canada Warbler | ➤ Pugnose Shiner | ➤ Freija Fritillary |
| ➤ Connecticut Warbler | | ➤ Frigga Fritillary |
| ➤ Least Flycatcher | ➤ Mink Frog | ➤ Emergent Marsh – Wild Rice |
| ➤ Nelson's Sharp-tailed Sparrow | ➤ Northern Flying Squirrel | ➤ Inland Lakes |
| ➤ Northern Goshawk | ➤ Water Shrew | ➤ Northern Dry-Mesic Forest |
| ➤ Olive-sided Flycatcher | ➤ Woodland Jumping Mouse | ➤ Northern Sedge Meadow |
| ➤ Osprey | | ➤ Northern Wet Forest |
| ➤ Red Crossbill | | ➤ Submerged Aquatic-Oligotrophic |
| ➤ Spruce Grouse | | |

PRIORITY CONSERVATION ACTIONS

- Increase representation of red and white pine forests, especially older age classes.
- Use adaptive management techniques to restore pine-dominated forest structure and composition.
- Develop techniques for using prescribed fire to reduce other woody competition when establishing and maintaining red and white pine forests.
- Develop educational tools and demonstration areas to articulate the benefits of using prescribed burning for ecological management.
- Preserve and maintain large expanses of northern sedge meadow.
- Manage wild rice areas, oligotrophic lakes, and emergent marshes as complexes within other forest and wetland types.
- Where appropriate, focus protection and management of lake and river shoreline areas on the habitat requirements for the Pugnose Shiner and Least Darter, which need shallow densely-vegetated areas for spawning.
- Implement a bioregional monitoring design to provide data needed to complete a status assessment of Northern Goshawk.
- Protection and restoration of natural lake and stream habitat, including establishment of refuge areas and appropriate management of aquatic plants, are needed for conservation of the Pugnose Shiner, which requires clear waters and littoral zone vegetation.
- Maintain large expanses of lowland coniferous forest in the context of older age classes and upland coniferous landscapes.
- Restore habitat for the Longear Sunfish in the few rivers and lakes where they occur.
- Survey large peatlands for presence of boreal birds, Lepidoptera and other boreal taxa.
- Collect more information on the status and biology of the Longear Sunfish to help focus conservation efforts.

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CONSERVATION OPPORTUNITY AREAS

Northern Highland Kettle Lakes and Pine Forest – Global Significance

Large extensive area of pine dominated forest with a continuum of Northern Dry Forest, Northern Dry-Mesic Forest, Northern Mesic Forest, and Northern Wet Forest. Also embedded within the upland features is a concentration of glacial lakes with a continuum of Submerged Aquatic, Submerged Aquatic-Oligotrophic, Emergent Aquatic-Wild Rice, Open Bog, Northern Sedge Meadow, and Inland Lakes.

COA(s): Trout Lake Pines (5.01), Flambeau Headwaters (5.04), Blackjack Springs (5.05) and Chain-O-Lakes (5.09)

SGCN – Greater Redhorse, Lake Sturgeon, Least Darter, Longear Sunfish, Pugnose Shiner, Four-toed Salamander, Mink Frog, Mudpuppy, Wood Turtle, , Bald Eagle, Black-throated Blue Warbler, Canada Warbler, Connecticut Warbler, Least Flycatcher, Northern Goshawk, Olive-sided Flycatcher, Osprey, Red Crossbill, Spruce Grouse, Veery, Whip-poor-will, Eastern Red Bat, Gray Wolf, and Northern Flying Squirrel.

Public Land – Northern Highland-American Legion State Forest, Scattered Forest Lands, Vilas County Forest, Chequamegon-Nicolet National Forest, Dunn Lake Pines State Natural Area.

Legacy Places – Chequamegon-Nicolet National Forest, Northern Highland American Legion State Forest, Upper Wisconsin.

Important Bird Areas – Central Northern Highlands, Flambeau Headwaters, and Deerskin River.

Large Sedge Meadows, Fens and Prairies – Upper Midwest/Regional Significance

Large expanse of peatlands with a continuum of Emergent Marsh, Emergent Marsh-Wild Rice, Northern Sedge Meadow, Open Bog, Muskeg, Northern Wet Forest, and Northern Dry-mesic Forest.

COA(s): Wisconsin River Headwaters (5.02), Squirrel and Tomahawk Rivers (5.03), Manitowish/Powell Peatlands (5.06), Big Swamp (5.07) and Thunder Lake (5.08)

SGCN – Four-toed Salamander, Mink Frog, Wood Turtle, American Bittern, Black Tern, Black-backed Woodpecker, Blue-winged Teal, Boreal Chickadee, Canada Warbler, Connecticut Warbler, Northern Harrier, Olive-sided Flycatcher, Red Crossbill, Rusty Blackbird, Solitary Sandpiper, Spruce Grouse, Veery, Yellow Rail, Eastern Red Bat, Gray Wolf, Moose, Northern Flying Squirrel, Water Shrew, Woodland Jumping Mouse, Bina Flower Moth, Bog Fritillary, Bog Copper, Freija Fritillary, Frigga Fritillary, Indian Skipper and Pink-edged Sulphur.

Public Land – Northern Highland-American Legion State Forest, Chequamegon-Nicolet National Forest, Squirrel River Pines State Natural Area, Tomahawk River Pines State Natural Area, Powell Marsh Wildlife Area, Turtle Flambeau Scenic Waters, Vilas County Forest, Oneida County Forest, Thunder Lake State Wildlife Area.

Legacy Places – Border Lakes, Northern Highland-American Legion, Deerskin River, Squirrel and Tomahawk Rivers, Upper Wisconsin River, Willow Flowage, Chequamegon-Nicolet National Forest.

Important Bird Areas – Manitowish Peatlands, Upper Wisconsin River Wetlands and Pines, and Rainbow Flowage and Peatlands.

Medium-sized Rivers and Streams – Upper Midwest/Regional Significance

Medium-sized river systems including the drainage lakes through which they flow – Coolwater Streams and Warmwater Streams, including riparian communities.

COA(s): Trout-Manitowish Headwaters (A.42)

SGCN – Greater Redhorse, Lake Sturgeon, Least Darter, Longear Sunfish, Pugnose Shiner, Four-toed Salamander, Mink Frog, Mudpuppy, Wood Turtle, Solitary Sandpiper, Eastern Red Bat, Water Shrew, Lancet Clubtail.

Public Land – Northern Highland-American Legion State Forest.

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Legacy Places – Northern Highland-American Legion.

Diverse Aquatic Communities – State Significance

Medium-sized river systems including Coolwater Streams and Warmwater Streams, including riparian communities.

COA(s): Squirrel and Tomahawk Rivers (A.27)

SGCN – Least Darter, Four-toed Salamander, Mink Frog, Mudpuppy, Wood Turtle, Solitary Sandpiper, Eastern Red Bat, Water Shrew, Pygmy Snaketail.

Public Land – Squirrel River Pines State Natural Area, Tomahawk River Pines State Natural Area.

Legacy Places –Willow Flowage.