

Wisconsin Department of Natural Resources
Wisconsin's Northern State Forest Assessments:
Biodiversity
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Executive Summary

The Biodiversity Team of the State Forest Assessment effort was given the charge of "integrating effective measures into the management planning for the five northern state forest to assure the conservation of biodiversity". These northern state forests include the Black River, Brule River, Flambeau River, Governor Knowles, and Northern Highland-American Legion. To fulfill this charge the team:

- 1) referred to the 1995 DNR report *Wisconsin's Biodiversity as a Management Issue: A Report to Natural Resource Managers*, with special attention to the "possible actions" identified to help attain biodiversity goals;
- 2) reviewed existing master plans for each northern state forest as well as other pertinent management documents (e.g., DNR silvicultural, wildlife, and endangered species management guidelines);
- 3) identified opportunities and constraints within each existing master plan, for helping attain the goals set forth in the Biodiversity Report; and
- 4) identified issues that should be assessed during the preparation of new master plans for the state forests.

Within the Biodiversity Report, seven major natural communities are described including the Northern Forest, Southern Forest, Oak Savanna, Oak and Pine Barrens, Grassland, Wetland, and Aquatic Communities. Based on the team's review of each property master plan and the 1995 DNR "Biodiversity" report, each property has certain communities that can be maintained or featured through possible management actions. Likewise, each property has special management opportunities that will maintain or enhance biodiversity. Table summaries assessing each northern state forests natural community opportunities/capabilities and special management opportunities are as follows:

Natural Community Opportunities/Capabilities within the Northern State Forests

Community	Black River	Brule River	Flambeau River	Governor Knowles	NHAL
Northern Forest	◆	◆	◆	◆	◆
Southern Forest	◇				
Oak Savanna	◇				
Oak and Pine Barrens	◆	◇		◆	◇
Grassland		◇			
Wetland	◆	◆	◆	◆	◆
Aquatic	◆	◆	◆	◆	◆

◆ = Major Opportunities/Capabilities
 ◇ = Minor Opportunities/Capabilities

Special Management Opportunities within the Northern State Forests

	<i>Special Management Opportunities</i>
<i>Black River State Forest</i>	<ul style="list-style-type: none"> ● On sandy glacial lake deposits and adjacent uplands, special options exist for recreating oak and pine barrens and pine forest, and some limited oak savanna. ● Proximity to other major public forests and wildlife areas presents an invaluable opportunity to manage the state forest as part of a large landscape of forest, barrens, meadow, marsh, and bog.
<i>Brule River State Forest</i>	<ul style="list-style-type: none"> ● Management of riparian vegetation to protect the Bois Brule River. ● Restoration of boreal forest near Lake Superior. ● Protection of the Brule Bog and associated springs.
<i>Flambeau River State Forest</i>	<ul style="list-style-type: none"> ● The management of contiguous northern forests. ● The management of interspersed forested wetlands. ● The management of the Flambeau River and its riparian zone.
<i>Governor Knowles State Forest</i>	<ul style="list-style-type: none"> ● Protection of a major riverine-floodplain swamp hardwood forest. ● Management of forest communities that have a strong ecological affinity for sandy, droughty soils.
<i>NHAL State Forest</i>	<ul style="list-style-type: none"> ● Because of its location on the sandy pitted outwash, there's an opportunity to manage for a landscape of pines, oaks, and aspens in various age classes and stand sizes. ● Because of the very large number of inland lakes, there's an opportunity to manage for undeveloped lake shoreline and natural assemblages of aquatic plants and animals.

Based on the team's review of each property's master plan, the current plans have done a good job of protecting and conserving many elements of biological diversity. The master plans are typically focused on the protection of the major unique natural attributes within the forests, including lakes and rivers. Many land use designations exist which protect these features. The current master plans also allow for flexibility and adaptation concerning many conservation activities. The future plans, however, do need to build upon existing efforts. In all of the natural communities, for example, additional informational needs exist and operational procedures need to be developed and incorporated. Certain natural communities either have limited representation, such as pine barrens, or limited natural capability in a northern forest setting, such as grasslands. Where the natural capability exists for these communities, restoration and/or maintenance opportunities should be considered.

One of the challenges we will face in preparing future master plans is the need to balance competing elements of diversity. For example, some areas that afford opportunities for expanding boreal forest may also be considered for promoting grassland diversity. Fortunately, the planning process affords an ideal opportunity to assess the relative merits of alternative actions. Our abilities to consider the ecological attributes of sites, stands, and landscapes through time will be enhanced with the use of ecological classification systems and new technologies.

The future master plans will enhance the Department's ability to address conservation efforts targeting biological diversity. The priorities and techniques for conserving biological diversity will continue to adapt as new information becomes available. These plans will be designed to be more adaptive to new information, thereby enhancing the Department's ability to respond to changing conditions and new insights.

The master planning process will provide a forum in which biological diversity will be assessed along with the full range of benefits provided by state forests. This report provides information that will be used to inform the master planning discussions and ensure that biological diversity is addressed appropriately during the process.