

## The VEGETATION of PORCUPINE MOUNTAINS WILDERNESS STATE PARK



This aerial view of the park shows Mirror Lake in the foreground surrounded by old-growth hardwood and hemlock forests.

Porcupine Mountains Wilderness State Park is located in the western Upper Peninsula of Michigan (46° 45'N, 89°45'E) along the south shore of Lake Superior. The park is characterized by Precambrian bedrock ridges and almost complete (95%) forest cover.

One of the primary objectives in setting aside the area as a state park was to “preserve forever as a forest museum the largest stand of mixed hardwoods and hemlock existing in Michigan.” Within the park is a block of primary or uncut forest of approximately 35,000 acres in size. This forest constitutes the largest stand of old-

growth hardwood and of hemlock in the Great Lakes region and is considered by the Michigan Natural Features Inventory to be the “biggest and best tract of virgin Northern Hardwoods in North America.”

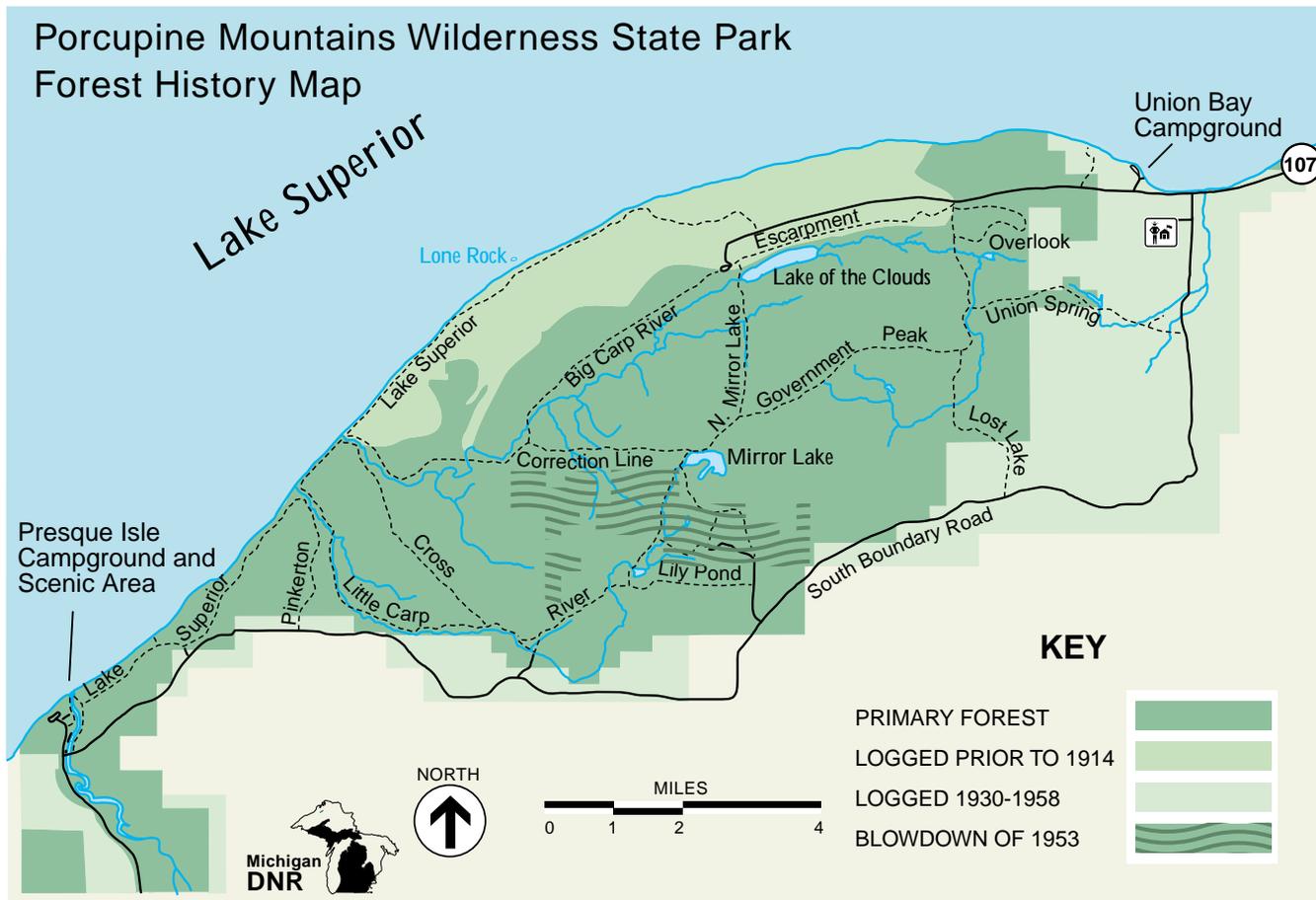
The principal forest type within the park is a closed-canopy northern mesic forest (Curtis 1959), dominated by sugar maple, eastern hemlock, and yellow birch, with lesser amounts of eastern white pine, red maple, basswood, green ash, northern white cedar, and northern red oak.

Disturbed forests occupy sections of the park that were logged prior to state ownership. Much of the park's Lake Superior shoreline was logged prior to 1914 and was burned by a large slash fire in 1919. This area now supports extensive white birch, quaking aspen and balsam fir forests, and numerous shrubland openings.

Large areas in the eastern part of the park were clearcut between 1930 and the late 1950s. These lands now support mixed hardwood forests.

Pioneer communities characterized by bearberry, blueberry, juniper, and dwarfed pine occur along cliffs and rock outcrops in several areas of the park.

Through state legislation (Sec. 35103 of Part 351, 1994 PA 451, Wilderness and Natural Areas), 40,808 acres of Porcupine Mountains Wilderness State Park's nearly 60,000 acres of land area is designated Wilderness.





A closed-canopy northern mesic forest blankets much of the Porcupine Mountains, especially moist upland areas. Characteristic tree species of this community are sugar maple, eastern hemlock, yellow birch, basswood, green ash, and white pine.



Dense stands of eastern hemlock often form in the Porcupine Mountains. Other tree species cannot easily grow in the deep shade of a hemlock forest. If an opening in the forest cover occurs sugar maple, yellow birch, white spruce and other tree species may become established.



Young forests of sugar maple, yellow birch, red maple and other hardwoods predominate on lands in the eastern section of the park. Much of this area was logged between 1930 and the late 1950s, prior to state ownership.



Much of the forest along the park's Lake Superior shoreline was logged prior to 1914. Afterwards, a large slash fire burned this area. Today, the vegetation in this part of the park is dominated by white birch, quaking aspen and balsam fir, with numerous shrubland openings.



Wave action and ice-scour make it difficult for vegetation to grow on the bedrock shores of Lake Superior. Lichens, mosses, grasses, sedges, and other hardy plants survive here by anchoring themselves in rock crevices.



Plants and animals living on the summit of the escarpment cliff endure extremes of temperature, moisture and wind. Characteristic vegetation of this community includes lichens, dwarfed pines and cedar, juniper, bearberry, and blueberry.