

Rare Species Survey of Newberry Compartment 35



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Cover photo: Dry-mesic northern forest along the East Branch of the Two-Hearted River provides suitable habitat for northern goshawk (Photo by Joshua Cohen).

Introduction

In the summer of 2011, the Forest Management Division of the Department of Natural Resources, at the bequest of Newberry Unit Manager Richard Stevenson, commissioned Michigan Natural Features Inventory (MNFI) to conduct rare species surveys within Newberry Compartment 35.

The purpose of the MNFI surveys were to search for populations of rare woodland raptors and rare plant species associated with conifer swamp and open wetland habitat. These rare species were documented in the general vicinity and noted by Richard Stevenson and MNFI scientists as potentially occurring in the compartment. This report summarizes the findings of MNFI's surveys.

Methods

Woodland Raptor Surveys

Con-specific call broadcast surveys were conducted for nesting Red-shouldered Hawk (*Buteo lineatus*, state threatened) and Northern Goshawk (*Accipiter gentiles*, state special concern) in suitable habitat (lowland coniferous, mixed deciduous, mixed upland conifers, mature aspen, mixed pine, and maple, beech, cherry association). Call stations were located in the following stands: 22, 30, 36, 46, 48 and 55 on May 5, 2011.

Botanical Survey

Based on preliminary knowledge and reports from Richard Stevenson of high priority stands within the compartment, the botanical survey focused on rare plants of rich conifer swamps, including such species as round-leaved orchis (*Amerorchis rotundifolia*, state endangered), Calypso orchid (*Calypso bulbosa*, state threatened), ram's head orchid (*Cypripedium arietinum*, state special concern), Lapland buttercup (*Ranunculus lapponicus*, state threatened) and limestone oak fern (*Gymnocarpium robertianum*, state threatened). It was also anticipated that such habitats as poor fen or bog could be encountered, thus additional targets such as Wiegand's sedge (*Carex wiegandii*, state special concern), sweet colt's foot (*Petasites sagittatus*, state threatened), and panicked screwstem (*Bartonia paniculata*, state threatened) were considered to be potential targets. Searches of the MNFI Rare Species Explorer were used to compile formal lists of potential rare plant species based on known or anticipated natural community types within the survey area.

Results

Woodland Raptor Surveys

No Red-shouldered Hawks responded to calls or were heard or seen. One Northern Goshawk responded to the caller on two different occasions in stand 30 and three stick nests were located in this stand, all in large diameter aspen trees. GPS points were taken of all nests and each nest was checked a second time in early June for nesting success. All three stick nests were checked with a 50' fiberglass lineman's pole with a wireless video camera attached at the top. The observer on the ground used a hand-held monitor to see directly into each nest. All nests were empty, indicating no successful nesting at this site in 2011. However, an adult Northern Goshawk was still territorial and in the immediate vicinity of the nests so this was determined to be an active territory. An element occurrence record for this northern goshawk territory (EO ID 18575) was mapped and transcribed into MNFI's conservation database September 28, 2011.

Botanical Survey

The botanical survey was conducted on June 13 and June 14, 2011. A meander search through all representative areas was carried out, a plant list of all species encountered was compiled, and representative photos were taken throughout the swamp and bog habitat. No rare plant species were encountered during the survey of stands 20, 27, and 30. An uncommon orchid species,

Platanthera orbiculata, was identified along the northern border of stand 20. Another notable feature of the swamp in stand 20 was the presence of a relatively significant amount of Canada yew (*Taxus canadensis*), which is normally more heavily browsed and impacted by white-tailed deer. The species possibly persists better in this area owing to high snow depths and seasonal deer migrations to more southern deer yards.



Platanthera orbiculata, with large, prostrate basal leaves and flowering stalk, Stand 20, June 14, 2011 (Photo by Mike Penskar).

Discussion

In addition to rare species surveys, this past summer MNFI ecologists conducted ecological surveys within Newberry Compartment 35 as part of a concurrent project with the Forest Management Division to evaluate potential Biodiversity Stewardship Areas. Surveys within the compartment were conducted to evaluate wetlands and uplands associated with the East Branch of the Two-Hearted River. During the course of these surveys, high-quality poor conifer swamp, rich conifer swamp, and bog were documented and a restorable dry-mesic northern forest was noted along the East Branch of the Two-Hearted River. All high-quality natural community occurrences will be entered next fiscal year into MNFI's conservation database. Portions of this compartment, identified by Forest Management Division staff as "Special Conservation Area" are also suitable for consideration as a potential Biodiversity Stewardship Area.

Results from these surveys will be incorporated into future comments MNFI provides during the compartment review process.

Recommendations

MNFI staff concur that the designation of areas in Newberry Compartment 35 by FMD staff as “Special Conservation Area” is justified based on the occurrence of high-quality natural communities and rare raptors (northern goshawk).

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