

Title: Progress Report for Southern Michigan DNR Lands Integrated Inventory Project:
Natural Features Inventory of Waterloo Game Unit at Waterloo Recreation Area

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For: Michigan Department of Natural Resources and Environment, Wildlife Division

Date: September 30, 2010

Report Number: 2010-16

In 2010, surveys were conducted in the Waterloo Game Unit at Waterloo Recreation Area for exemplary natural communities and rare animal species. To plan this natural features inventory, we utilized IFMAP Stage 1 data, which was completed by MNFI in 2009. The surveys resulted in new occurrences for eleven elements (i.e., natural communities and rare species) including six natural communities, two birds, one insect, one gastropod, and one plant (Table 1). In addition, updated information, which included data on new locations, was collected for eight additional elements (Table 1). Because the field data has not yet been processed, at this time we cannot report on the total number of new element occurrences documented for each element. This short progress report will be followed by a comprehensive report of our findings in late November.

Table 1. New and updated elements from 2010 surveys of the Waterloo Game Unit

Scientific Name	Common Name	New	Update
Bog		X	
Dry-mesic southern Forest		X	
Emergent Marsh		X	
Poor Conifer Swamp			X
Prairie Fen		X	
Rich Tamarack Swamp		X	X
Southern Wet Meadow		X	
<i>Botaurus lentiginosus</i>	American bittern		X
<i>Ixobrychus exilis</i>	least bittern		X
<i>Cistothorus palustris</i>	marsh wren	X	
<i>Ammodramus henslowii</i>	Henslow's sparrows	X	
<i>Emys blandingii</i>	Blanding's turtle		X
<i>Prosapia ignipectus</i>	red-legged spittlebug	X	
<i>Vallonia parvula</i>	trumpet vallonia	X	
<i>Zizania aquatica</i> var. <i>aquatica</i>	wild rice		X
<i>Dennstaedtia punctilobula</i>	hay-scented fern		X
<i>Eleocharis equisetoides</i>	horsetail spike-rush	X	
Total		11	8

Surveys for exemplary natural community occurrences resulted in new element occurrences for prairie fen, southern wet meadow, emergent marsh, rich tamarack swamp, and dry-mesic southern forest. In addition, updated information was collected for previously existing natural community occurrences of prairie fen, rich tamarack swamp, and poor conifer swamp. While conducting surveys for exemplary natural communities, populations of rare plants were documented for the following species: wild rice (*Zizania aquatica* var. *aquatica*, state threatened), hay-scented fern (*Dennstaedtia punctilobula*, state threatened), and horsetail spike-rush (*Eleocharis equisetoides*, state special concern).

Surveys for rare animal species were conducted in upland, wetland, and aquatic habitats. These surveys included searches for rare birds, herpetiles (herps), insects, mussels, and gastropods. In additions to documenting state listed species, we also recorded the locations of other animals of interest including those listed as Species of Greatest Conservation Need (SGCN).

For secretive marsh birds, 74 point counts were conducted at 32 randomly selected locations between early May and mid June. Fourteen points were surveyed three times, 16 points were visited twice, and two points were surveyed only once. We documented several element occurrences of American bittern (*Botaurus lentiginosus*; state special concern), least bittern (*Ixobrychus exilis*; state threatened), and marsh wren (*Cistothorus palustris*; state special concern). Nine American bittern observations were made at eight points. These observations were all new locations for American bittern that will be used to update two existing element occurrences. Two least bitterns were observed at two new locations and represent an update to an existing element occurrence. We documented 46 marsh wren observations at 17 survey points and one additional incidental location. Although marsh wrens occurred at many widely scattered locations across the recreation area, these observations represent one new element occurrence.

For rare songbirds, 31 point counts were conducted in large blocks of mature forest during late June and early July, but no rare species were observed. Three incidental observations of singing male cerulean warblers (*Dendroica cerulean*; state threatened) were documented at separate locations early in the breeding season (May 17 and 24); however, we did not consider these observations an element occurrence, because they were not relocated on subsequent visits and therefore may have been migrants.

For rare grassland-nesting songbirds, three blocks of grassland were surveyed. We observed 10 singing male Henslow's sparrows (*Ammodramus henslowii*; state endangered) at three locations: (1) west of Riethmiller Road (6 males); (2) northeast of Waterloo-Munith Road (2 males); and (3) east of Moeckel Road (2 males). These 3 locations represent one new element occurrence for Henslow's Sparrow.

During surveys for rare herps, Blanding's turtles (*Emys blandingii*, state special concern) were documented in at least nine locations. Additional herp species noted include the

following: northern ribbon snake, northern water snake, redback salamander, American toad, northern leopard frog (SGCN), spring peeper, wood frog, painted turtle, and snapping turtle.

Surveys for insects were conducted at several of the newly document prairie fens and resulted in three new element occurrences of the red-legged spittlebug (*Prosapia ignipectus*). Surveys were also conducted for the following rare insects but did not yield positive results: Poweshiek skipperling, swamp metalmark, Kansan leafhopper, angular spittlebug, and borer moths (*Papaipema beeriana*, *P. cerina*, *P. speciosissima*, *P. maritima*).

Surveys for rare mussel surveys were conducted at three sites in the Portage River between Little Portage Lake and Waterloo Munith Road. Although no rare species were documented, we did find evidence of four mussel species, two represented by live individuals (fatmucket [*Lampsilis siliquoidea*] and strange floater [*Strophitus undulatus*]) and two by shells only (Giant floater [*Pyganodon grandis*] and paper pondshell [*Utterbackia imbecillis*]). These mussel species are considered to be common and are likely being supported by fish host populations in Little Portage Lake.

Surveys for rare gastropods were conducted at seven locations and resulted in one element occurrence of the trumpet vallonia (*Vallonia parvula*, state special concern). This terrestrial snail was collected near Munith Road, approximately 0.5 mile south of Waterloo Schumacher Rd. An additional nine species of terrestrial snails and ten species of aquatic snails were found during the surveys but none are currently state listed.

In the coming months, we plan to transcribe the natural community and rare species field data into the Biotics database, where it will be available to a variety of users for natural resource management and planning. We also plan to produce a comprehensive report our findings for the Waterloo Game Unit that will include maps illustrating our survey locations and results.

We are very grateful for the opportunity to work with DNR staff on this project and look forward to another productive year of working together.