

Field Name	Field Value
Name	Randy Mitchell, Mark Purdy
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Web_Address	
Renewal	No
Permit_Number	<b>2011-016 (renewal of 2007-025)</b>
Activity	Research
Project	Buckthorn Eradication in the Tamarack Bog
Dates	Sept. -Oct 2007, Through Nov 2014
Group_Size	1- 4
Research_Area	No
Sensitive_Area	Yes -- Tamarack Bog
Other_Areas	No
Building	No
Prep_Work	
Sampling_Collecting	Yes
Sampling_Methods	Quadrats and transects. no permanent markers; Glossy Buckthorn, an alien invasive species, will be removed from the tamarack bog .
Description	<p>We propose to study the effectiveness of a method to eliminate of glossy buckthorn (<i>Rhamnus frangula</i>) in the Tamarack Bog at BNP. This work is consistent with the prior recommendations of Dr. Lauchlan Fraser, former UA biology professor, as described in his 2005 paper in the Ohio Journal of Science. Eradication would be done by cutting the buckthorn plant near ground level and applying herbicide (50% glyphosate , per recommended dose) on the cut stump via a standard laboratory squirt bottle. This is a very effective method, minimizes total herbicide use, and is specific to only the intended species. (ie - glyphosate decomposes relatively quickly in contact with soil or water, and there should be little, if any, harm to other species). Purdy has used this technique for 7+ years as a volunteer for The Nature Conservancy (TNC) and routinely lead s TNC work crews using herbicides at Herrick Fen Nature Preserve. We have discussed the proposed work with Jim Belt, Enforcement Officer for Pesticide &amp; Fertilizer Regulations for the Ohio Department of Agriculture (614-728-6389). Mr. Belt informed us that no license is required and no reporting is required in this situation, as long as general use herbicides (such as glyphosate) are used and the work is done strictly on a volunteer basis (as proposed). However, we wil keep records of herbicide use even</p>

	<p>though not required. WeI will also be responsible for herbicide acquisition and storage. Purdy has previously signed a waiver with Bath Township (clearing them of any responsibility for me while on the preserve) that should still be in effect. August to October is a good time for buckthorn eradication as its leaves and berries make identification easy and the herbicide treatment should be quite effective. We would aim for working in the bog 1 or 2 days per week during that period. No work would be done on days when rain seemed probable. The proposed work would require intensive effort this year, with follow-up work required in future years for eradication of new buckthorn plants and/or expanding the size of the buckthorn-free area. Each year without action only makes the problem worse. I believe that there is very little risk. The bog is currently overrun with alien invasives and weI don't expect that the proposed work could make it worse. Rather, the proposed work has a very high probability of improving the health of the bog (even though the bog is in the declining stage of its life). We have discussed this with Karen Adair of TNC, who agrees with my position. This work is also a pre-requisite for any potential educational boardwalk in the bog. To monitor the effectiveness of this project Dr. MITchell and I will score buckthorn abundance on several sample plots before and after the eradication efforts.</p>
Agreement	Accept