

This letter is written in response to DCR call for public comment on the proposed timber harvests.

We are deeply concerned about timber harvesting in Massachusetts state forests. It appears to lack adequate preliminary research, oversight, and management. Before allowing any timber harvesting, DCR should compose a Resource Management Plan for each of the state forests and also specifically for each of the sites proposed for harvesting, as it is required by Principle 7 of the New England Standard for Certification by the Forest Stewardship Council. A comprehensive assessment of lots proposed for cuttings is required by Chapter 21, Section 2F of Massachusetts General Laws.

In the absence of adequate assessment of the two lots proposed for timber harvesting in Boxford State Forest, we have undertaken our own brief plant survey in hope that the results will facilitate a more informed decision by DCR regarding Boxford Forest.

Boxford State Forest harbors "a NHESP Priority Habitat of rare species and estimated habitat of rare wildlife polygon." The territory of the forest is intricately divided between three different owners: the DCR (State Forest), Division of Fisheries and Wildlife (Wildlife Sanctuary), and Essex County Greenbelt Association. In this situation, the boundary of the lots intended for timber harvesting should have been marked particularly diligently--and well in advance the deadline for submitting public comments. However, the lots still remained unmarked on August 9 (only a week from the deadline, August 15).

On the DCR website, there is only a statement regarding the size of one of the two lots (the red-pine stand called here Lot Two). There is no straightforward information regarding the size of the largest of the two lots, which contains the most valuable hardwood forest (Lot One).

The Scientific Certification Systems' Report on Massachusetts Public Lands ([http://www.scs-certified.com/PDFS/forest\\_mass.pdf](http://www.scs-certified.com/PDFS/forest_mass.pdf)) requires that, in accordance with the recently approved public information policy, all proposed harvests shall be "marked with a sign to inform the public of a proposed harvesting project." This requirement has not been met in Boxford State Forest.

In this situation, our suggestion is that DCR should plan for a second round of public comments--upon completing the required marking of the lots, and also upon adequately informing the public of the forest-harvesting plans by making announcements in local newspapers and informing interested parties, such as the Massachusetts Division of Fisheries and Wildlife, Essex County Greenbelt Association <http://ecga.org>, and Boxford

Trails Association/Boxford Open Land Trust <http://www.btabolt.org>

Speaking about the findings of our survey, first of all, it has depicted a high diversity of vascular plants. Comparison with a few other pre-harvesting surveys has shown that Boxford Forest harbors a remarkably rich flora. On average, other surveys yielded 55 species per lot, with the maximum of about a hundred species in one case. We were able to list about 140 higher plants within the two adjacent lots proposed for harvesting. This number includes some few species recorded outside the lots on adjacent land; Lot One and Lot Two proper yielded 126 species. (Species recorded on the adjacent land are marked with an asterisk on the enclosed list.) Employing the notion of an elementary flora, we have to admit a high probability of finding within Lot One and Lot Two of those species that were encountered on the surrounding land.

Another important feature of Boxford Forest is a nearly complete absence of invasive species. We were able to identify only four notorious alien species on the entire territory in question. None of them plays any significant role. The most widespread of the four appears to be glossy buckthorn (*Rhamnus frangula*). There was a single plant of common buckthorn (*Rhamnus cathartica*) encountered as well as a single specimen of Oriental bittersweet (*Celastrus orbiculatus*) and a few common barberries (*Berberis vulgaris*). Currently there is no Japanese barberry (*Berberis thunbergii*), no phragmites (*Phragmites australis*), no purple loosestrife (*Lythrum salicaria*), no Norway maple (*Acer platanoides*).

Considering the overall difficult situation with invasive plants in eastern Massachusetts, we have to treat those rare sites that remain free of invasives with much responsibility. One may argue whether or not the proposed harvesting of the forest might be beneficial for animal wildlife; however, there is no doubt that such a major disturbance first and foremost will allow the alien plant species to penetrate and conquer the newly available open space. It is a well known fact that alien seed have been introduced to new territories traveling with trucks, machinery, and mechanisms taken from one site to another and thus contaminating the soil.

Among the most interesting findings in Boxwood Forest there are native species that once used to be common, but now have become locally rare in eastern Massachusetts. These are, for example, red columbine (*Aquilegia canadensis*), bunchberry (*Cornus canadensis*), hepatica (*Hepatica nobilis* var. *obtusata*), three-lobed violet (*Viola palmata* var. *dilatata*), bog arum (*Calla palustris*), pinesap (*Monotropa hypopithys*), and a rather uncommon fern, ebony spleenwort (*Asplenium platyneuron*). Bunchberry, hepatica, and

three-lobed violet populations would be particularly vulnerable in the event of timber harvesting, as the first one of those is located right on the access road, and the latter two are at a major intersection, where there is a large opening convenient for parking. Lot One also contains an isolated large American chestnut (*Castanea dentata*) whose estimated height is more than 25 m.

Lot Two (the red-pine planting) appears to be much less valuable in terms of diversity, as compared to Lot One. Yet this lot contains a small orchid whose identity remains questionable at this point. Flowers are needed for accurate determination, and the plant has been found already in fruit. This is one of the two small *Goodyera* species distributed in Massachusetts, either *G. tessellata* or *G. repens*. The latter is endangered in Massachusetts, being known from Essex County. The uncertainty regarding this species alone appears to be a legitimate reason for at least deferring the harvesting action.

Additionally, a vast variety of fungi and lichens have been encountered within Lot One. A specialist on non-vascular plants should be involved with a survey of this territory.

Enclosed please find:

1. list of higher plant species encountered at the lots proposed for timber harvesting in Boxford State Forest;
2. map showing exact locations of some of the findings. The track has been superposed onto the map provided by DCR for the two lots intended for timber harvesting.

We hope that all the involved parties will act in accordance with the law and in the best interest of the Commonwealth, our country, and the natural world.

Irina Kadis  
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DCR

13 August 2008

## BOXFORD STATE FOREST INVENTORY 5, 9 August 2008

### Frequency scale:

+ -- occurs, 1 -- rare, 2 -- scattered, 3 -- common

\* -- species found on land surrounding the described lots

### CONIFERS

hemlock, *Tsuga canadensis*--1 (understory only)

common juniper, *Juniperus communis*--1

white pine, *Pinus strobus*--2

red pine, *Pinus resinosa*--planted

### LEAFY TREES

sugar maple, *Acer saccharum*--3

red maple, *Acer rubrum*--3

American beech, *Fagus grandifolia*\*

red oak, *Quercus rubra*--3

black oak, *Quercus velutina*--3

white oak, *Quercus alba*--3

American chestnut, *Castanea dentata*--1

basswood, *Tilia americana*--2 (understory)

shagbark hickory, *Carya ovata*--3

pignut hickory, *Carya glabra*--3

cherry birch, *Betula lenta*--3

paper birch, *Betula papyrifera*--1

gray birch, *Betula populifolia*\*

hop-hornbeam, *Ostrya virginiana*--3

American elm, *Ulmus americana*--1

sassafras, *Sassafras albidum*-- + (understory)

big-tooth aspen, *Populus grandidentata*-- + (understory)

smooth shadbush, *Amelanchier laevis*-- + (understory)

black cherry, *Prunus serotina*--2 (understory)

### LEAFY TREES OF VERNAL POOLS AND BROOKS

swamp white oak, *Quercus bicolor*\*

yellow birch, *Betula alleghaniensis*--2

white ash, *Fraxinus americana*--2

## SHRUBS

maple-leaf viburnum, *Viburnum acerifolium*--3  
arrowwood, *Viburnum dentatum*--1  
wild rasin, *Viburnum nudum*var. *cassinoides*--+  
huckleberry, *Gaylussacia baccata*--3  
dangleberry, *Gaylussacia frondosa*--1  
maleberry, *Lyonia ligustrina*--2  
highbush blueberry, *Vaccinium corymbosum*--2  
hillside blueberry, *Vaccinium pallidum*--3  
lowbush blueberry, *Vaccinium angustifolium*--3  
beaked hazelnut, *Corylus cornuta*--3  
American hazelnut, *Corylus americana*--2  
black chokeberry, *Aronia melanocarpa*-- +  
meadowbeauty, *Spiraea albavar. latifolia*--1  
bush honeysuckle, *Diervilla lonicera*\*  
sheep laurel, *Kalmia angustifolia*--2

## SHRUBS OF VERNAL POOLS AND BROOKS

buttonbush, *Cephalanthus occidentalis*\*  
spicebush, *Lindera benzoin*--2  
winterberry, *Ilex verticillata*--3  
sweet pepperbush, *Clethra alnifolia*\*  
swamp azalea, *Rhododendron viscosum*-- +  
swamp rose, *Rosa palustris*-- +

## VINES

fox grape, *Vitis labrusca*\*  
greenbrier, *Smilax rotundifolia*--1  
carrion flower, *Smilax herbacea*-- 1  
Virginia creeper, *Parthenocissus quinquefolia*--2  
poison ivy, *Toxicodendron radicans*--1

## SMALL SHRUBS AND SEMI-WOODY PLANTS

wintergreen, *Gaultheria procumbens*--1  
common blackberry, *Rubus allegheniensis*--2  
swamp dewberry, *Rubus hispidus*--3  
*Rubus*sp.-- +  
wild sarsaparilla, *Aralia nudicaulis*--3

pipsissewa, *Chimaphila umbellata*--1  
spotted wintergreen, *Chimaphila maculata*--3  
American shinleaf, *Pyrola americana*\*  
partridge berry, *Mitchella repens*--3  
goldthread, *Coptis trifolia*--1

#### HERBACEOUS DICOTS

red columbine, *Aquilegia canadense*-- +  
round-lobe hepatica, *Hepatica nobilis* var. *obtusata*--1  
starflower, *Trientalis borealis*--3  
whorled loosestrife, *Lysimachia quadrifolia*--2  
cow-wheat, *Melampyrum lineare*--2  
arrow-leaved violet, *Viola sagittata*--1  
three-lobed violet, *Viola palmata* var. *triloba*-- +  
common cinquefoil, *Potentilla simplex*--2  
spotted geranium, *Geranium maculatum*--2  
yellow wild indigo, *Baptisia tinctoria*\*  
hog peanut, *Amphicarpaea bracteata*--1  
bunchberry *Cornus canadensis*-- +  
mad-dog skullcap, *Scutellaria lateriflora*--1  
Indian tobacco, *Lobelia inflata*\* -- +  
white wood aster, *Eurybia divaricata*--2  
big-leaved aster, *Eurybia macrophylla*-- +  
whorled aster, *Oclemena acuminata*--2  
calico aster, *Symphotrichum lateriflorum*--1  
gall-of-the-earth, *Prenanthes trifoliolata*--2  
bluestem goldenrod, *Solidago caesia*--3  
woodland hawkweed, *Hieracium paniculatum*--1  
rattlesnake weed, *Hieracium venosum*--1  
hairy hawkweed, *Hieracium gronovii*--+  
plantain-leaved pussytoes, *Antennaria plantaginifolia*\*  
*Polygonum* sp. -- +  
yarrow, *Achillea millefolium*-- +  
self-heal, *Prunella vulgaris*-- +  
common plantain, *Plantago major*--1  
lance-leaf bedstraw, *Galium lanceolatum*--1  
Indian pipe, *Monotropa uniflora*--3  
pinesap, *Monotropa hypopithys*-- 1

## HERBACEOUS DICOTS OF VERNAL POOLS AND BROOKS

yellow marsh marigold, *Caltha palustris*\*  
skunk cabbage, *Symplocarpus foetidus*--1  
turtlehead, *Chelone glabra*-- +  
northern white violet, *Viola macloskeyi*ssp. *pallens*--1  
enchanter's nightshade, *Circaea lutheniana*ssp. *canadensis*\*  
tall meadowrue, *Thalictrum pubescens*--1  
swamp beggar-ticks, *Bidens connata*--+

## MONOCOTS

pink ladyslipper, *Cypripedium acaule*--2  
checkered rattlesnake plantain, *Goodyera pubescens*-- +  
dwarf rattlesnake plantain, *Goodyera*acf. *repens*--1  
broad-leaved woodland sedge, *Carex laxiflora*--2  
flattened oatgrass, *Danthonia compressa*--3  
forked panic-grass, *Dichanthelium dichotomum*--1  
path rush, *Juncus tenuis*--1  
Solomon seal, *Polygonatum pubescens*--2  
false Solomon seal, *Smilacina racemosa*--2  
little merrybells, *Uvularia sessilifolia*--1  
Indian cucumber root, *Medeola virginiana*--2  
Canada mayflower, *Maianthemum canadense*--3

## MONOCOTS OF VERNAL POOLS AND BROOKS

sallow sedge, *Carex lurida*-- +  
*Scirpus*ssp. \*

woolgrass, *Scirpus cyperinus*--2  
bog arum, *Calla palustris*\*  
Jack-in-the-pulpit, *Arisaema triphyllum*--2

## FERNS AND FERN ALLIES

Shining clubmoss, *Huperzia lucidula*-- +  
Pennsylvania culbmoss, *Lycopodium hickeyi*--1  
princess-pine, *Lycopodium obscurum*--3  
southern ground-cedar, *Diphasiastrum digitatum*--2  
slender ground-cedar, *Diphasiastrum tristachyum*-- +

ebony spleenwort, *Asplenium platyneuron*\*  
 bracken, *Pteridium aquilinum*--2  
 hayscented fern, *Dennstaedtia punctilobula*--3  
 marginal woodfern, *Dryopteris marginalis*--1  
 intermediate woodfern, *Dryopteris intermedia*-- +  
 spinulose woodfern, *Dryopteris carthusiana*-- +  
 New York fern, *Thelypteris noveboracensis*--3  
 lady fern, *Athyrium filix-femina*--2  
 interrupted fern, *Osmunda claytoniana*--3  
 Christmas fern, *Polystichum acrostichoides*-- +  
 rock-cap fern, *Polypodium virginianum*--1

#### FERNS AND FERN ALLIES OF VERNAL POOLS AND BROOKS

marsh fern, *Thelypteris palustris*--2  
 cinnamon fern, *Osmunda cinnamomea*--2  
 royal fern, *Osmunda regalis*--2  
 sensitive fern, *Onoclea sensibilis*--3

#### INVASIVE PLANTS

glossy buckthorn, *Rhamnus frangula*--1  
 common buckthorn, *Rhamnus cathartica*-- +  
 European barberry, *Berberis vulgaris*--1  
 Oriental bittersweet, *Celastrus orbiculatus*\*

**Boxford State Forest Pre-Harvesting Inventory**



Survey track  
 superposed  
 onto DCR  
 map for timber  
 harvesting lots  
 (Lot 1 - red,  
 Lot 2 - green),  
 dots showing  
 locations for  
 photographs