

Wildlife-Landscape Management Report  
Produced for the  
Bainbridge Island Park District

Property: **Ted Olson Nature Preserve**

Location: Between Madison, Winther, Kallgren Roads, Bainbridge Island, WA 98110

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The mission of the Bainbridge Island Metropolitan Park & Recreation District “ is to build a healthy community through effective, sustainable stewardship of the District’s parks and open space, and through the development and delivery of innovative cultural and recreation opportunities” ([www.biparks.org](http://www.biparks.org)). In this report, I evaluate landscape management within the Ted Olson Nature Preserve to provide for the well being of the wildlife that resides there, as well as maintaining the recreational opportunities this neighborhood sanctuary provides for a variety of users. More and more, ecosystem services and functioning should be considered in the complex equation of land use, drawing in the importance of groundwater recharge and filtration, filtration of air pollutants, and carbon sequestration, as well as the vital role key species have in keeping the whole system functioning as an efficient entity.

### **Upland Forest**

The western half of the property along Madison Avenue is dominated by a mixed age stand of Douglas-fir (*Pseudotsuga menziesii*), Western red-cedars (*Thuja plicata*) and Western hemlocks (*Tsuga heterophylla*) in the overstory, with several Douglas-firs being rather mature. Scattered Pacific madrones (*Arbutus menziesii*), bigleaf maples (*Acer macrophyllum*) and red alder (*Alnus rubra*) complete the canopy of the western part of the Preserve. The shrub layer features one of the highest densities of evergreen huckleberry (*Vaccinium ovatum*) I have seen on the island. This prolific producer of blue-black berries is an important source of food for birds and mammals (Halverson et al. 1986), as well as providing a nearly impenetrable boundary to the upper trail system. Also present in good numbers is red huckleberry (*Vaccinium parvifolium*), salal (*Gaultheria shallon*) and red elderberry (*Sambucus racemosa*) -all important food sources for birds and mammals.

There is also a nice diversity of native fungi, which implies healthy soil profiles and mycological relationships with trees and shrubs (Perry et al. 1989). The upper forest has some non-native flora, including scattered English laurel (*Prunus laurocerasus*), English holly (*Ilex aquifolium*) and advancing pockets of English ivy (*Hedera helix*) and Himalayan blackberry (*Rubus armeniacus* or *R. discolor*). Controlling these invasive non-natives should be included in a long term management plan for the Preserve.

### **Wetland/Red Alder Stand (Easement)**

As worded in the conservation easement for the eastern five-acres section of the TONP, “the purpose of the easement are [sic] to assure the Conservation Values, specifically the scenic, open space, natural, forest, wetlands and wildlife habitat values be retained forever.” Management recommendations for this section of the Preserve should reflect not only this commitment to preserving the natural resources of the landscape, but also accommodate the recreational use of the landscape in a sustainable manner.

The prolific salmonberry cover and soft substrate (both wetland related) reducing human activity has created ideal nesting habitat for Swainson's Thrush (*Catharus ustulatus*; Mack and Yong 2000, Ehrlich et al. 1988), and a knowledgeable neighbor reports hearing their spirally song throughout the spring. During several off-trail surveys through this area, I found only one nest from a previous nesting season. New trails should avoid as much as possible too much intrusion into this habitat structure.

Red-legged frogs (*Rana aurora*) are likely to be present and will breed in small vernal ponds/puddles, while Pacific tree frogs (*Pseudacris regilla*) are more likely to use larger and more permanent wetlands.

## Birds

Informal bird surveys were conducted during the non-breeding season, reflecting a period of limited vocalizations and thus, compromised detectability. An “\*” denotes species more sensitive to disturbance during the nesting season: many of those are more associated with interior forest habitat. Wildlife observations were conducted in November and December, 2009.

<b>Bald Eagle</b> ( <i>Haliaeetus leucocephalus</i> )	-present- Cameron, pers com.
<b>Cooper's Hawk</b> ( <i>Accipiter cooperii</i> )	-present-SR
<b>Barred Owl</b> ( <i>Strix varia</i> )	-present (probable nesting) Salsbury, pers com
<b>Northern Saw-whet Owl*</b> ( <i>Aegolius acadicus</i> )	-present- Acker, pers com.
<b>Pileated Woodpecker*</b> ( <i>Dryocopus pileatus</i> )	-present (probable nesting) -SR
<b>Northern Flicker</b> ( <i>Colaptes auratus</i> )	-present (possible nesting) -SR
<b>Ruby-crowned Kinglet</b> ( <i>Regulus calendula</i> )	-present-in mixed flock-SR
<b>Golden-crowned Kinglet</b> ( <i>Regulus calendula</i> )	-present-in mixed flock-SR
<b>Chestnut-backed Chickadee</b> ( <i>Poecile rufescens</i> )	-present-in mixed flock (probable nesting) -SR
<b>Black-capped Chickadee</b> ( <i>Poecile atricapillus</i> )	-present-SR
<b>Spotted Towhee*</b> ( <i>Pipilo maculatus</i> )	-present (probable nesting) -SR
<b>Bewick's Wren</b> ( <i>Thryomanes bewickii</i> )	-present (probable nesting) -SR
<b>Winter Wren*</b> ( <i>Troglodytes troglodytes</i> )	-present (possible nesting) -SR
<b>Varied Thrush</b> ( <i>Ixoreus naevius</i> )	-winter resident only-SR
<b>American Robin</b> ( <i>Turdus migratorius</i> )	-present (probable nesting) -SR
<b>Song Sparrow</b> ( <i>Melospiza melodia</i> )	-present (probable nesting) -SR
<b>Dark-eyed Junco</b> ( <i>Junco hyemalis</i> )	-present (probable nesting) -SR
<b>Red-breasted Nuthatch</b> ( <i>Sitta Canadensis</i> )	-present (probable nesting) -SR
<b>Pine Siskin</b> ( <i>Spinus pinus</i> )	-present (probable nesting) -SR

I did not detect the following year-round resident bird species that would be expected to nest and/or forage within the upland forest section of the Preserve (though see Exhibit B11 from the Olson Conservation Easement Baseline Documentation):

**Sharp-shinned Hawk\*** (*Accipiter striatus*)  
**Band-tailed Pigeon\*** (*Patagioenas fasciata*)  
**Western Screech-owl** (*Megascops kennicottii*)  
**Anna's Hummingbird** (*Calypte anna*)  
**Hairy Woodpecker** (*Picoides villosus*)  
**Downy Woodpecker** (*Picoides pubescens*)  
**Red-breasted Sapsucker** (*Sphyrapicus rubber*)

**American Crow** (*Corvus brachyrhynchos*)  
**Common Raven\*** (*Corvus corax*)  
**Steller's Jay** (*Cyanocitta stelleri*)  
**Brown Creeper** (*Certhia americana*)  
**Hutton's Vireo** (*Vireo huttoni*)  
**Bushtit** (*Psaltriparus minimus*)  
**Cedar Waxwing** (*Bombycilla cedrorum*)  
**Purple Finch** (*Carpodacus purpureus*)  
**House Finch** (*Carpodacus mexicanus*)  
**Red Crossbill** (*Loxia curvirostra*)

The arrival of spring brings not only the wonderful songs of courtship, but also improved detectability of the singers, both resident and migrant. The neotropical migrants are only here during the breeding season (April-September) and include several species that may also be expected to nest within the TONP:

**Black-throated Gray Warbler\*** (*Dendroica nigrescens*)  
**Yellow-rumped Warbler** (*Dendroica coronata*)  
**Wilson's Warbler\*** (*Wilsonia pusilla*)  
**Orange-crowned Warbler\*** (*Vermivora celata*)  
**Rufous Hummingbird** (*Selasphorus rufus*)  
**Pacific-slope Flycatcher\*** (*Empidonax difficilis*)  
**Olive-sided Flycatcher\*** (*Contopus cooperii*)  
**Western Tanager\*** (*Piranga ludoviciana*)  
**Black-headed Grosbeak\*** (*Pheucticus melanocephalus*)

### Mammals

Few mammal species were observed directly, though Douglas squirrels (*Tamiasciurus douglasii*) were observed during each visit. An abundant Douglas-fir cone crop and piles of cone scales indicate a healthy population of Douglas squirrels within the preserve. Several black-tailed deer (*Odocoileus hemionus*) were observed within the wetland section of the eastern addition, yet not mentioned by frequent visitors. As this section receives little human intrusion at this point, it probably functions as a refugium for species more sensitive to human activities.

Visitors with dogs were present on every site visit I made. Most were on leash, though several were not and were observed chasing a Douglas squirrel that was calling from a tree.

Other small mammal species that would be expected within the upland forest section of the preserve based on habitat association include:

- Townsend's chipmunk (*Tamias townsendii*)
- Northern flying squirrel (*Glaucomys sabrinus*)
- Deer mouse (*Peromyscus maniculatus*)
- Pacific or coast mole (*Scapanus orarius*)
- Shrew-mole (*Neurotrichus gibbsii*)
- Wandering or Vagrant shrew (*Sorex vagrans*)
- Raccoon (*Procyon lotor*)
- Coyote (*Canis latrans*) [Missing cat sign at the corner of Kallgren and Roberts from Nov. 2009 is an indicator that coyotes are in the neighborhood.]
- Virginia opossums (*Didelphis virginiana*) were reported being seen within the Preserve by one visitor.

## Overall landscape and wildlife management recommendations:

### Trails

- Preserve visitors should stay on the official maintained trails within the Preserve. Off-trail explorations can result in failed nesting efforts in songbirds using areas of the Preserve that have reduced human access and activity, as well as disturb species like the black-tailed deer that seek refuge in more remote areas of the Preserve.
- Dogs should be kept on-leash while their owners are utilizing the trails of the Preserve. There is a growing body of research that shows dogs (off-leash) can have a significant negative impact on nesting songbirds, waterfowl and shorebirds, and mammals- especially deer. All dog waste should be collected by owner and taken home to dispose of- the Preserve does not currently provide waste receptacles.
- With the size and geometry of this forest preserve, trail placement should seek to minimize intrusion to the interior core of the forest (>200 feet from an edge), which is a shrinking resource on Bainbridge Island. Given the current trail configuration, I offer the following options for consideration:
  1. Extend NW corner of main loop trail out toward Madison Avenue (closer to the edge) and restore old trail with native vegetation (see Fig. 1- “A”).
  2. Eliminate “shortcut” from parking area east to loop trail and restore with native vegetation (Fig 1- “B”).
  3. Develop the recently added trail within the upper section of the Preserve, while removing/restoring the old trail that runs north-south through the middle of this section. This would minimize activity within the interior forest core, while providing a longer main loop trail (see Fig. 1- “C”).
  4. If the old north-south stretch of the main loop trail is not removed and restored, one management option would be to close this stretch of trail down during the bird breeding season (typically late March through early August). Signs posted at each end can note the closure time periods, as well as the reasons why (human/dog activity can reduce nesting success and increase stress in wildlife).
  5. All new trails should maintain the winding feel that makes the historic trails so interesting.
  6. Trails marked in green in Fig. 1 represent my recommended trail configuration for the Preserve. Dashed red trails note the current trail scheme.
  7. *NOTE: Trail locations in Fig. 1 are NOT based on electronic survey work and are thus not georeferenced. They may not represent an accurate depiction of current or proposed trail locations. They have been drawn in approximate locations to illustrate general trail layout.*
- Access from Kallgren Road will require some intrusion into and through the delineated wetland area. In areas of poorly drained soils, elevated causeways can be installed, though these are not recommended for crossing wetlands. Within the delineated wetland area, an elevated boardwalk is preferred to a causeway, in that it permits both natural flow of surface water, and does not restrict natural movement of smaller wetland-associated wildlife species (Portland Parks and Recreation). Trails should be sited to minimize disturbance to surface hydrology and species that select the abundant salmonberry/red alder for nesting structure (see page 3), as well as passing near interesting natural or cultural features. Trail placement should strive to maximize interior habitat (>200 feet from edge). As noted above with regards to Black-tailed deer, this undisturbed section currently provides a refugium for

wildlife with (currently) very limited human activity. I propose one of two potential trail options, with specific placement based on appropriate surveyed siting:

1. North route: This route off of Kallgren passes through a nice stand of mature Douglas-Firs and runs westward near the northern boundary of the Preserve until connecting with the main loop rail near the Winther Road easement (Fig. 1- “N”).
  2. South route: This route off Kallgren passes through one wetland swath to a large Douglas-Fir (with ladder) and runs westward through more wetland habitat near the southern boundary of the Preserve before connecting with the new stretch of the loop trail (Fig. 1- “S”).
- Acquisition (or conservation easement) of parcel 112502-3-017-2007 (just east of the Winther Road easement) would extend the protected wetland habitat by 2.31 acres (Fig. 1- “D”). If this is done, I would lean toward the South route (see above) as this would create more interior red alder/salmonberry habitat within the delineated wetland area.

### **Domestic pets**

- Domestic house cats should be kept from roaming freely within the Preserve. House cats have a profound impact on ground nesting and foraging songbirds and small mammals and should be excluded from the Preserve (American Bird Conservancy 2009). In addition, the Preserve is likely home to coyotes, which frequently include house cats in their diet.
- Dog owners with properties near the Preserve should make an effort to keep dogs from freely roaming the Preserve.

### **Invasive Species**

- The spread of non-native and invasive plant species should be controlled to limit their negative impacts on native vegetation and the wildlife species that utilize native vegetation. This requires active community involvement to evaluate invasive plant presence, the removal of key species, planting of native plant cover, and ongoing monitoring of invasives in restored areas. Species that should be 1) removed; and 2) monitored, include:
  8. English ivy (*Hedera helix*)
  9. English holly (*Ilex aquifolium*)
  10. Laurel (*Prunus laurocerasus*)
  11. Himalayan blackberry (*Rubus armeniacus* or *R. discolor*)
  12. Evergreen Blackberry (*Rubus laciniatus*)
  13. Scotch broom (*Cytisus scoparius*)
  14. Herb Robert (*Geranium robertianum*)

### **Other**

- Nest boxes sized for Western Screech-owls and Northern Saw-whet Owls can be created and, with professional guidance, be mounted within appropriate habitats within the Preserve.

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