



Hatch's click beetle

# Lost Lake Bog Biology

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Lost lake is a class 2 wetland which is an important sensitive area providing habitat to a wide variety and some unique species of wildlife that is not easily replaced. it is also one of only a few bog-like habitats left in lower elevations of Puget Sound. For this reason we are interested in knowing about the biology of this wetland and how it is changing through time. As part of this effort we conducted a biological survey of the wetland for birds, amphibians, insects with emphasis on trying to find beetles that are associated with bogs.



Beller's Ground Beetle



Soldier beetle



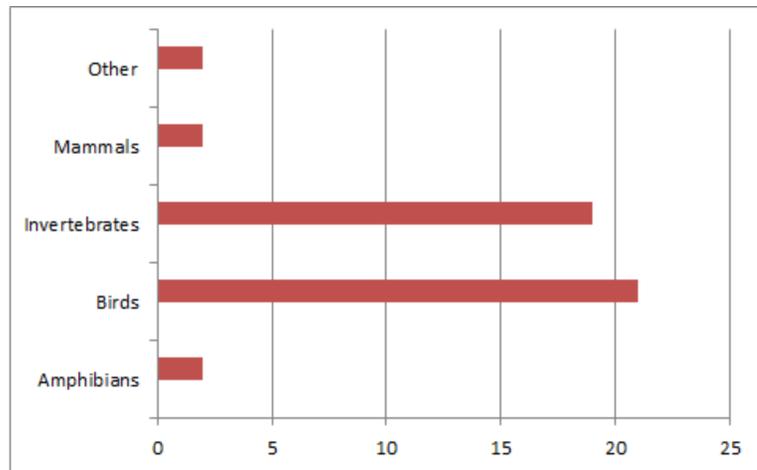
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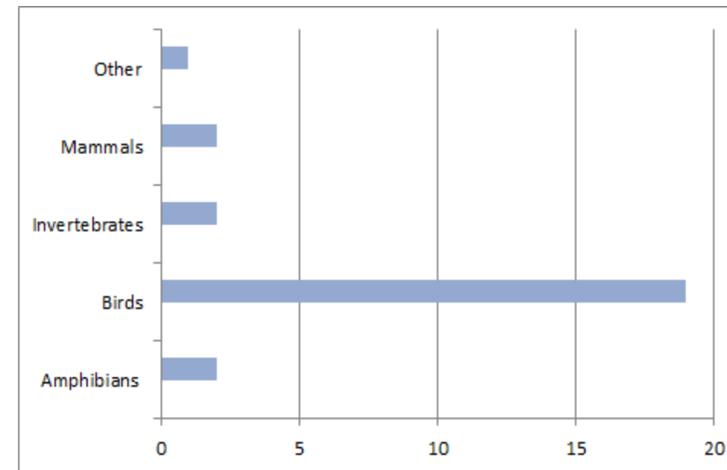
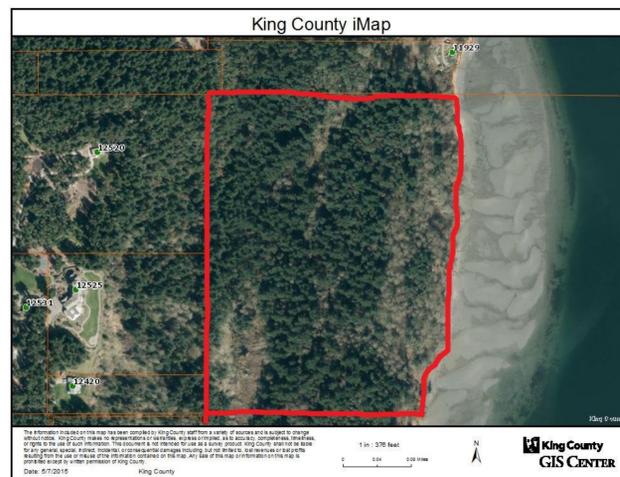
Centipede



Unidentified spider



2015 Species Richness (Separate from 1997 data)



1997 Species Richness



Phantom midge larvae



Rough-skinned newt



The Bog Dog



Bailey with Rough-skinned newt

**We asked ourselves what lives at Lost Lake? Do the sensitive and declining Hatch's click beetle and Beller's ground beetle, bog obligates, live at lost lake?**

The methods we used included a bird survey by a master birder (Ezra Parker) using his sight and hearing, beating the bushes with sticks, and examining flowers for beetles according to standard protocols written by Xerces Society. We also added to and compared results with an earlier wildlife survey completed in 1997 that VHS students participated in.



## Results:

In comparison to the 1997 survey, we added...

- 12 new bird species
- 19 new invertebrate species
- 2 new mammals
- 1 new amphibian

During our trip to the bog we did not locate the Hatch's click beetle or the Beller's ground beetle, which were the beetle's we were originally searching for.

We did, however, find some otter scat on the sphagnum mats which does tell us that otters are coming through these bog areas.

We have concluded that there is a high species diversity. In just a couple hours we were able to find quite a few new species to add to the inventory list. This means that there could be many more detailed species surveys that could be done in the near future in order to discover the real level of diversity this bog. During our limited search for the Beller's ground beetle and the Hatch's click beetle we didn't seem to discover any but that does not mean that they aren't there.

Our sampling conditions weren't ideal. It was wet and rainy when we began sampling. We'd suggest returning in the warm, sunny months to look again.