

Creating a Wildlife Snag

Seattle Audubon took the recommendations of Keith Geller and the Garden Committee and decided to take action to reduce risk from the tree. They also took a suggestion from the arborist's report and, rather than removing the entire tree, decided to create a so-called *snag* or *wildlife tree* to preserve habitat for birds and other creatures. It will remain for a time as a structural element and serve as a science lesson in the native garden.

Although many birders are well aware of the importance of snags for nesting sites and food sources, many city dwellers are not. Most tree removals in urban forests are complete, resulting in a loss of habitat for bird species that rely on them.

The Seattle Audubon tree was intentionally reduced in size to a point where it is unlikely to fall over or break under a wind load. We cut the tree in a manner that imitates a tree broken in a storm, to disguise the fact that the tree was artificially cut. Seattle Audubon's snag has a few living branches on it. These were left to keep some energy flowing into the trunk to slow the deterioration of the remaining tree, and to lessen the visual impact of the change.

A passer-by, on seeing the process, asked if this was not "tree topping." Tree topping ruins a tree's natural form and causes many other problems over time. Topped Douglas firs tend to grow back vigorously and often develop multiple new tops that are weakly attached to a decaying trunk. We won't let the tree grow back in such an unwieldy manner. Instead, as we manage our snag, we'll prune off some of the expected new growth.

Snags are quickly colonized by insects and fungi that begin to soften the wood during the slow process of decomposition. Primary excavators, including woodpeckers and predatory insects, create cavities, which are then utilized by chickadees, owls, mammals, and insect pollinators such as orchard, mason, and honeybees. We will do several things to help speed up this process. We'll cut some cavities into the tree to attract birds. Normally, it would take several years for the tree to be developed in this manner by fungi and woodpeckers. We'll also cut in a "bat slit" to attract bats. Bats often shelter under the bark as it begins to slough off.

Douglas fir makes a very good, long-lasting snag. We expect that the Seattle Audubon snag will last at least twenty years, and perhaps much longer. The arborist will monitor

it and at some point, as it begins to deteriorate, may reduce its height again for safety reasons.

We hope that the many nature lovers who frequent the site will be observing the progress of the snag and keeping a close watch for the first tenants.



photo by Scott Baker

A branch is left to serve as a wildlife perch.

How Old Is the Snag Tree?

The snag tree appears to be older than the building, which was built in 1949. This is somewhat surprising, because back then, the tendency was to bulldoze everything and begin anew.

We counted 86 annual growth increments (tree rings) in the wood of the tree at the height of the last trunk cut. This count averaged 6.8 years per inch of trunk radius. The radius near the base of the tree is 19" x 6.8 = ~129 years! This is an estimated *maximum* age for the tree. We don't know what conditions were for the young tree so the age calculated cannot be considered highly accurate. Still, it's probably safe to say that the tree is over 100 years of age.

You can read other things, too, in the tree's rings. You can see that the tree was stressed at the time the building went up, when traffic over its roots increased and part of its water supply was cut off. And many, many years later, when the native garden was started, the tree benefited from the destruction of the lawn and the addition of natural mulch.



photo by Keith Geller

This stump will remain in the garden as an educational tool.