Spare the axe! Lopez willow woodlands

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The recent official opening of the L.I.F.E. Trail at Lopez School draws attention to an important native island plant community that is quickly disappearing from Lopez: seasonally wet woodlands dominated by willows, crabapples, bitter cherry, and ocean spray. These very dense, shrubby forests have long been regarded as "trash" and were vigorously cleared away. Islanders and visitors alike are so accustomed to Douglas fir forests that we can scarcely imagine a time when much of the landscape (especially on Lopez and Shaw) was covered with impenetrable expanses of deciduous trees.

Due to the density of the deciduous woodland canopy, relatively few plants thrive in the understory—but they include delicate shade-tolerant terrestrial orchids. Wherever the canopy is temporarily broken by the collapse of old willow branches, buttercups and tiny-flowered Nemophilas ("grove-lovers") can be found. Native peoples harvested crab apples and a variety of medicinal herbs from willow woodlands, and as far as we know, did not burn or clear them, leaving them as reservoirs of animal diversity.

Three groups of animals are most closely associated with deciduous woodlands on Lopez: songbirds, bats, and butterflies.

Although most islanders seem to associate our native butterflies with open fields and meadows, the truth is that a majority of our colorful island butterflies eat deciduous trees and woody shrubs—including our native willows!

Butterflies associated with deciduous woodlands on Lopez include the spectacular Western Tiger Swallowtail, whose caterpillars feast on willows, ocean spray, and aspens (our only remaining large aspen grove is at Odlin South) and the Pale Swallowtail, which prefers ocean spray and alders. The caterpillars of the small blue Spring Azures also eat ocean spray, while the large black and orange Lorquin's Admiral eats willows and ocean spray. White-fringed black Mourning Cloaks are also willow eaters. Other stunning butterflies depend on the thistles and nettles that dominate partially sunny patches in Lopez deciduous woodlands: Stayr Angelwings, Milbert's Tortoiseshell, Red Admirals, orange-and-black Painted Ladies, and checkered orange Mylitta Crescents. All together,

the woodland at Lopez School contains the host plants for 22 native butterfly species – four times the number of native butterflies that rely on plants in the surrounding fields!

Songbirds find a cornucopia of small fruits and insects in deciduous woodlands. We are indebted to Liz Scranton for her inventory of songbirds heard in the willows at Lopez School. They include six species of warblers, four native sparrows, five finches (including Red Crossbills), the Varied Thrush, Swainson's Thrush, Cedar Waxwings, wrens, kinglets, flycatchers, and bushtits. With its diverse population of small birds as well as voles and other small rodents, the willow patch also supports a variety of avian carnivores: five owl species; seven species of day-hunting raptors including lightning-fast kestrels and merlins; and the Northern Shrike. Willows on the edges of farm fields were also the historical nesting habitat of bluebirds on Lopez.

We have not yet completed our survey of bats at Lopez School, but our recent re-discovery of the threatened Townsend's big-eared bat on San Juan Island suggests that there may be some surprises! Three of the nine bat species historically reported in San Juan County prefer to roost and forage in woodlands: the Long-legged myotis, Keen's myotis, and the Silver-haired bat. Other species rest in woodlands when hunting moths, mosquitoes and other insects over nearby ponds, pastures, or open wetlands. Indeed, an important reason why bats move into barns and attics is the absence of tree-cavity roosts after deciduous woodlands have been cleared and replaced by fields, lawns or conifers.

Madrona Murphy and Russel Barsh are conducting inventories of rare plants and animals in San Juan County for the Lopez-based conservation biology laboratory Kwiáht. See www.kwiaht.org for more information on current research activities on Lopez.