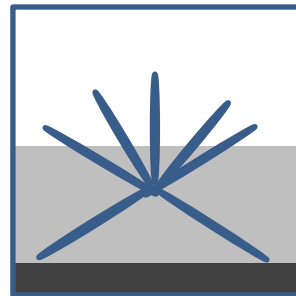


Assignment for Class: Forests of Island County

Douglas-fir, western hemlock, and western redcedar are the most important species in Island County forests. Use the pictures below to help you find these species where you live or in a state park in Island County. If possible, bring a 6" twig with leaves back home. Look down the twigs from the end (or lay them down on a table) and convince yourself that Douglas-fir leaves make the twig look bushy (leaves on all directions around the twig). Western hemlock and western redcedar leaves are held flat (most leaves on opposite sides of the twig). These simple differences help explain why Douglas-fir only grows in the sun and thus invades areas after disturbances and why western hemlock and western redcedar typically grow in the shade and can be found as small trees in forests. We will discuss the figures to the right to help understand how leaf differences contribute to the ecological differences between species. Hint: leaves can carry out very high rates of photosynthesis in full sunlight to partial shade, but almost no photosynthesis in full shade.

Douglas-fir



Full sunlight

Partial shade

Full shade

Western hemlock



Full sunlight

Full shade

Western redcedar



Full sunlight

Full shade