

Alaska Yellow-Cedar Moves North

By Sheila Spores, Silviculturist, Tongass National Forest

Climate change has become an increasingly prevalent topic in the news and in how the Forest Service will manage national forest lands for long term diversity and sustainability. The Forest Service has developed a strategic framework to guide management actions that address the challenges of climate change. One of the goals of this framework is “adaptation.” This means enhancing the capacity of forests to adapt to climate change in order to maintain ecosystem services. One of the methods that has been increasingly discussed is the idea of “facilitated migration,” or the moving of a species into an area where it doesn’t currently grow, but is anticipated to expand its range to that area in a warming climate. This kind of planting may be necessary because trees cannot migrate quickly enough keep up with the pace of anticipated climate change.

This past June, a group of silviculturists from across the Tongass



The Tongass planting crew—Chuck Ressler, R.D. Parks, Mike Sheets, Sheila Spores, Craig Buehler, and Chris Scott—traveled to Yakutat to implement a facilitated migration project involving Alaska yellow-cedar. Photo by Sheila Spores.

National Forest traveled to Yakutat to implement a facilitated migration project involving Alaska yellow-cedar. While yellow-cedar is found throughout most of the Tongass and west to Prince William Sound on the Chugach, its range appears to skip the Yakutat area. This tree species has been experiencing a widespread decline for the past century that is causing considerable mortality in Southeast Alaska. Research has indicated that a warming climate with reduced snow may be contributing to this decline. In the long term, this may mean a shift in the range of the species to higher elevations and extensions around the Gulf of Alaska. The Yakutat cedar project involved planting 3,300 Alaska

yellow-cedar seedlings in three recently harvested areas. These areas, part of the Situk Blowdown Reoffer Timber Sale, contained primarily Sitka spruce prior to harvest. It is expected that the stands will regenerate predominantly to Sitka spruce, but with an experimental population of Alaska yellow-cedar along with the spruce. The trees were grown from seeds collected on the Hoonah Ranger District. They were planted at an approximate spacing of every 20 feet and will be monitored in the following years to assess how these trees will respond to an area where they do not currently grow. If the plantations are successful, this may lead to further experimental plantations of Alaska yellow-cedar in the future, which may help this long-lived, culturally important species adapt to a changing climate.



Dying yellow-cedar