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THE UNIVERSITY
OF BRITISH COLUMBIA
Faculty of Forestry



NOTES FROM THE FIELD

Reducing Fire Risk and Enhancing Cultural Plants:
Innovations by Lílwat First Nation



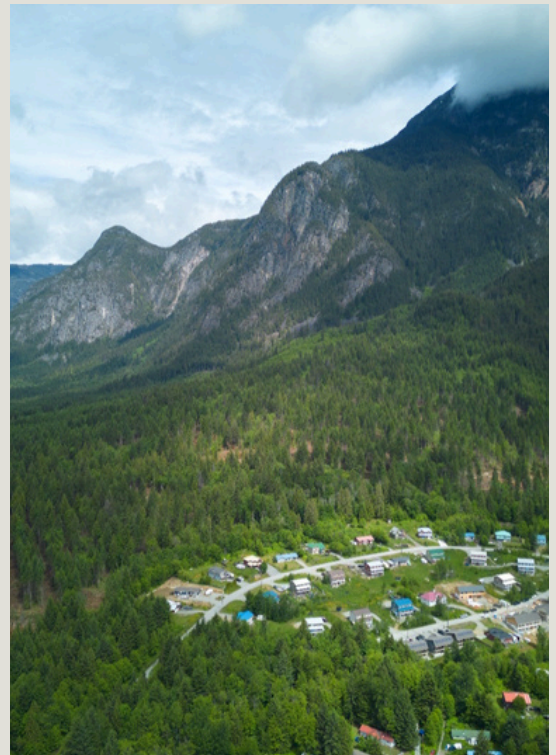
Photo: Simon Bedford



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Results of recent research suggests that the exposure to wildfire of the human population living within the Wildland Human Interface (WHI) across Canada will likely increase considerably by the end of the 21st century, with a notably more dramatic increase expected for First Nations communities (Erni et al. 2021). Understanding this risk, the Lílwat Nation is striving to be proactive. It is becoming clearer through research that fuel reduction treatments are a viable and recommended practice for any community at risk of wildfire. Lílwat Forestry Ventures¹ designed and implemented an innovative wildfire fuel reduction treatment adjacent to the community of Mt. Currie on IR 6. In addition to fuel reduction, the objectives of this partial cutting treatment include encouraging the growth of important cultural foods and medicines, which were identified as becoming increasingly rare during the development of the Lílwat Botanical Resource Strategy and the Lílwat Food Sovereignty Research Project.

The 71-hectare block is located in the Southern Dry Submaritime Coastal Western Hemlock (CWHds1) transitional to the Interior Douglas Fir Wet Warm (IDFww) biogeoclimatic subzone on the downslope margin of an active alluvial fan landform within IR6. The stand is second growth approximately 45 to 80 years old Douglas fir, cedar and hemlock with scattered Big leaf maple, birch and poplar. The prescription was kept relatively simple by using a target 7 meter spacing between Layer 1 (12.5 cm dbh and greater) in order to reduce the Layer 1 from 500 to about 200-300 stems per hectare. The prescription specified leaving all Douglas fir and cedar stems greater than 75 cm diameter and about 50 % of the Douglas fir stems and 75% of the cedar stems and only 5 % of the hemlock. Layer 1 Big Leaf maple and birch were also retained. Large cedar trees used for bark stripping were marked and retained as cultural trees.



Photos (above and below): Simon Bedford

Table 1. Products harvested

Species/Product	Volume
Douglas fir/hemlock chip and saw	12,194 m3
Cedar poles	850 m3
Douglas fir poles	55 m3
Birch/poplar firewood for Community Elders	1600 m3



¹ Lílwat Forestry Ventures is the Lílwat Nation's business group that is responsible for managing the forest resource in the Lílwat Traditional Territory.

The treatment was successful in meeting the shorter term objectives of reducing the fuel load and subsequent fire risk as well as generating revenue for the community. The area is also a priority site where the Lílwat-UBC research team will consider monitoring regeneration of cultural food and medicinal plants and fungi over the long term. The team will work collaboratively with Lílwat community members and elders to build a stewardship plan and determine if this site could also be replanted with specific species to purposefully create a cultural food forest. Due to the high number of stems retained and length of the logs (~35 m) a designated trail system was required to protect the leave residual trees and skid, deck and process the wood efficiently. The logging contractors did not have previous experience with high retention logging which resulted in a high level of professional supervision being required². By the completion of the treatment they were much more skilled using their machines³. Wildfire risk was further reducing by removing ladder fuels and piling slash. Due to the high post-harvest retention and the planned future stand entries to prune and burn, the block will not be planted. Pending funding approval, a cultural burn is planned for this coming fall or winter.



Pásteń (false azalea, *Menziesia ferruginea*) is an important medicine for Lílwat people.

² Simon Craig of Chartwell Resource Group supervised the harvesting and can be reached at s.craig@crgl.ca

³ Tigercat LX870E zero swing buncher, Tigercat LX855E tilter chucker with powerclam, Linkbelt 4040 RBN Hoe chucker, and a Tigercat 630D skidder.



There are many types of berries, like Mecáoź (black huckleberries, *Vaccinium membranaceum*), pictured here, that are important foods for Lílwat Nation members



Photo: Simon Bedford

For more information contact:

Jordan Gabriel Jordan.gabriel@lilwat.ca
(harvest operation)

Klay Tindal at klay.tindall@lilwat.ca
(harvesting operation)

Tonya Smith at Tonya.smith@ubc.ca
(cultural plants)

If your Community Forest would like to be included in the next “Notes From The Field” series, please reach out to:

Deborah de Long at
deborah.delong@ubc.ca