



Field Assessment of Cultural and Medicinal Plants in the spipiyus swiya

Presented To: **shíshálh Nation**

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Version Control and Revision History

Version	Date	Prepared By	Reviewed By	Notes/Revisions
0	Sept 12, 2019	S. Hawker	C. Piedt	Draft for client review
0.1	Nov. 30, 2019	S. Hawker	C. Piedt	Final - incorporating edits and feedback
0.2	Feb. 13, 2020	S. Hawker		Final - incorporating additional edits

Confidentiality Statement

All of the confidential information contained in this report has been redacted. The shíshálh Nation has provided written authorization to share this partially redacted report with project sponsors, such as the Western Canada Sustainable Forestry Initiative Implementation Committee.

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1. Introduction

The shíshálh Nation (shíshálh), in partnership with A&A Trading Ltd. (A&A), retained Scott Hawker R.P.Bio., of Ecora Engineering and Resource Group Ltd. (Ecora), to undertake a program during the 2019 field season to verify previously mapped and identified cultural and medicinal plant sites. This work is one effort to help shíshálh to identify, protect, and to support shíshálh use of cultural and medicinal plants within the spípiyus swiya.

The shíshálh Nation (shíshálh) Medicinal Plants Management Policy outlines expectations for the Crown, proponents, and all others who seek to regulate or benefit from the use of the medicinal plants in shíshálh swiya. Described within the policy:

Medicinal plants are central to the shíshálh way of life, spirituality, culture, economy, and society. Medicinal plants have been a source of health and well-being for countless generations of shíshálh people and are essential to the lives of our present and future generations. shíshálh laws speak to the duties we all hold to honour, respect, and protect the medicinal plants of our Territory. Our Title and Rights include the medicinal plant resources throughout our Territory.

2. Overview

Since mid-2018, under the direction of the shíshálh, technical staff of A&A, Tsain-ko Forest Development, and the shíshálh Nation Stewardship and Territorial Lands Management Division (hereafter called the “Cultural Plants Team”) have been collaborating to identify, protect, and support the use of cultural and medicinal plants by shíshálh Nation members within an area of the Sechelt Peninsula called, in the shashishalhem language, the spípiyus swiya.

To date, the Cultural Plants Team has created a list of focal cultural and medicinal plants from the shíshálh Nation’s confidential master list of Plant-foods, Medicines and Materials, dated November 10, 1998. The focus is on cultural and medicinal plants and trees that are rare, common but hard to access, or are common but very important to shíshálh. Through assessment of the key habitat types for each species, A&A staff have contributed desktop mapping of the ecosystems that the focal cultural and medicinal plants have the highest likelihood of occurring within. Other known values that are important to shíshálh, such as cedar bark stripping areas, old growth forests, berry picking areas, and routes to these areas (roads, trails) were also mapped.

The Cultural Plants Project aims to identify, protect and map key shíshálh cultural and medicinal plants on the Sechelt Peninsula. In collaboration with forestry partners, the mapped areas will be field verified to better understand the plant communities and harvesting potential, as well as the potential management options depending upon the current state of the vegetation. In addition to sharing information through newsletter announcements, community events, development of mapping resources, and development of plant identification cards, shíshálh community access will be facilitated through field-trips.

3. Scope

Defined in the Request for Proposals, the scope of this project included the completion of field verification assessments of previously mapped and identified cultural and medicinal plant sites throughout the spípiyus swiya. Based on a confidential list of approximately 90 cultural and medicinal plants species, the focus of this phase of field research was on assessment of road-accessible areas with potential plant communities/cultural and medicinal plant harvesting areas in the spípiyus swiya. Described under Section 4, the goal was to visit potential plant harvesting areas and determine if the focal cultural or medicinal plants are present. Duties involved travel to

and from field sites based out of Sechelt, collecting information on the type and abundance of cultural and medicinal plants present at each site on the Sechelt Peninsula, and collecting other spatial and environmental data at sites as well as photos of the plants.

4. Methodology

4.1 Field Planning

To contribute towards the goal of the overarching Cultural Plants Project, a key objective in field planning was to identify areas of high potential to support plants of cultural and medicinal importance and to select areas that are readily accessible to the shíshálh community. Approximately 90 areas were initially targeted for field assessment, based on modeling of potential plant habitat.

During the preliminary mapping by A&A, the focal areas were based on queries of available terrestrial ecosystem mapping (TEM) and forest inventory data. Reviews of the habitat requirements for the master list of cultural and medicinal plants yielded the identification of the following key ecosystem and/or stand types which were considered likely to support the plants:

- Wet, nutrient-rich ecosystems
- Dry, nutrient-poor ecosystems
- Bogs
- Western redcedar-leading stands (50+ years)
- Recently harvested blocks, for berry-harvest potential

As the scope included identification of areas that are accessible to the shíshálh community, including Elders, focus was placed on sampling along existing roads and adjacent forest habitat within a short walking or hiking distance of the road.

Described in this report, there were some areas of the swiya that could not be readily accessed under the scope of this project, given the need for additional coordination to secure boat access, and given the status of some road networks, which are overgrown and inaccessible.

Prior to sampling, a Field Verification Data Form (Appendix A) was developed and reviewed by shíshálh. Key items on the form include:

- Administrative site information and access comments;
- Biogeoclimatic information and ecosystem/site series estimates;
- Vegetation structure and ecosystem/site series distribution;
- Vegetation species and percentage cover, reported by structural layer (A, B, C and D); and
- Disturbance history and indication of any special management concerns.

Development of the field program was completed through collaboration with regional ecosystem staff from the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (MFLNRORD). Field resources were shared between this project and MFLNRORD staff, who were collecting vegetation data at random locations to facilitate development of a plant model. Access throughout the spipiyus swiya was planned to both validate the

target areas for this cultural and medicinal plants project, and to acquire data on the priority species (bunchberry, salmonberry, and false green hellebore) for the MFLNRORD program.

4.1.1 Safety

This project was planned in accordance with the safe work procedures under Ecora's safety management program, which is SAFE-certified under the BC Forest Safety Council. The field program was conducted in accordance with requirements for remote field work, which includes check-ins before and at the end of each field day, preparation of a trip-specific emergency response plan (ERP), completion and documentation of pre-work tailgate meetings, and ensuring a properly equipped vehicle, with radio and fire equipment.

4.2 Field Data Collection

The project was based on the following general scope of work.

- Navigation to a site considered representative of the identified target polygon;
- Completion of the Field Data Form, including a full vegetation list (tree, shrub, herb, and moss layer), with percentage cover estimates by layer; and
- Recording of field plot waypoints and representative digital photographs using an iPad mini, equipped with Avenza PDF software. Additional digital photographs of plant species were captured on a digital handheld camera.

5. Results

5.1 Field Assessment

Redacted.

5.1.1 Sampling Limitations

Redacted.

5.1.2 Field Summary

Redacted.

5.1.2.1 Identified Plant Species

Redacted.

5.1.2.2 Cultural/Medicinal Plants not Observed

Redacted.

5.1.2.3 Cultural/Medicinal Plants Identified by shíshálh as Rare

Redacted.

5.1.2.4 Cultural/Medicinal Plant Summary, by Ecosystem

Redacted.

5.1.2.5 Species of Management Priority

Redacted.

6. Notable Observations and Management

Redacted.

7. Next Steps

Redacted.

7.1 Management

Redacted.

7.2 Ongoing Related Work

Redacted.

Appendix A

Cultural & Medicinal Plant Field Data Form

SITE USE / DISTURBANCE (check all that apply); add extra notes at bottom of form

SPECIAL MANAGEMENT CONCERN (check all that apply); describe in Comments field

ADDITIONAL COMMENTS

ADDITIONAL PLANTS (Continued from Page 1)	OBSERVATIONS OF FAUNA
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OBSERVATIONS OF FAUNA

Species (Common name)[illegible]

DRAWING / DIAGRAM

Appendix B

Map of Survey Locations

Appendix C

Field Plot Data

Appendix D

Field Data Forms