

7. Summary of General Findings

The following list of research findings is based on information acquired through archival and field survey methods used to complete this project (Part 2), and on subsequent analyses of documentation acquired through those means. The findings are expressed in general terms, so as to be representative of the entire study area, and for much or all of the 1750-1850 research time period.

1) The theoretical ridgeline trail network model used to produce the project's predictive map (Part 2; Zybach 2002; 2003) proved vital to the success of this project. Such maps (and their hypothetical basis) can likely be developed and used with confidence for similar purposes in other forested areas of the region with similar topography. The current, digital version of this map is now on file with the Tribe in a GIS format that can continue to be refined, and to be used to inventory cultural resources, as more information becomes available.

2) All contiguous locations in the study area are less than 25 miles distance by trail from one another; meaning that, in the absence of snow, everyplace could be reached by walking in a day's time or less. This is an important feature for a pre-horse society that traveled almost entirely by foot, because the rivers and creeks are too steep and shallow, and the lakes and ponds are too small and isolated for most canoes or other watercraft.

3) Most of the study area is high elevation and inaccessible due to snow for much of the year. Only the South Santiam River corridor of prairies and meadows are below 1500' elevation, and remain snow-free and habitable most of the year. There is extensive archaeological evidence that riparian areas and ridgelines were heavily used for centuries and millennia before white contact, as weather permitted.

4) There are a significant and widespread variety of edible berries that ripen at most aspects and elevations throughout the entire summer. There are also significant fields and meadows of seeds, greens, roots, nuts, and bulbs in the study area that have good food value and were likely harvested in the spring and fall. Most food plants occurred at virtually every elevation, but prized blue huckleberry, beargrass, and Indian hellebore crops were only documented at sites above 3,000 feet elevation.

5) Most areas of human food production have become noticeably smaller in the past 50 years, and appear to have been diminishing in size for several centuries. Huckleberry fields, beargrass meadows, strawberry patches, ridgeline grasslands,



Figure 6. Human presence on the South Santiam River. Evidence of the long-term presence of people, including the entire time period of Santiam Molalla occupation and residency, was predicted, observed, and documented throughout the study area. This was probably the single most important finding. B. Zybach

and brakes all appear to be much smaller today than during the 1750 to 1850 time period, and, in turn, were apparently much smaller during that time, than during the 1500 to 1650 time period. This decline in size is largely marked, and caused, by the encroachment of conifer trees into perimeter areas previously kept free of trees via regular burning and tillage.

6) The evidence of greater intensive and extensive human land use levels in the past may have led to larger populations of deer and elk. This would have been as a result of far more forage being available in far more locations -- including protected valleys and widespread prairie grasslands -- throughout the year. Browse and grazing forage is also much poorer in quantity and quality within conifer forests, which have increased greatly in area and density during the past 200+ years, than in grasslands and shrublands, which have correspondingly decreased in size.

7) Local fish were not sufficiently abundant in numbers or large enough in size to form a regular staple of Santiam Molalla diets. Anadromous fish ran a gauntlet of highly skilled fishermen without limits or limitations in fishing

methods, from Astoria to the Willamette Falls, and from the mouth of the Santiam to the juncture of the Middle Santiam and South Santiam rivers; before entering the study area and immediately encountering impassable waterfalls and long shallows of water. Bears were also good fishermen, and it is likely that only a few, if any, salmon or steelhead ever reached Canyon Creek, Moose Creek, or Falls Creek most years. Regular lamprey eel runs may have been more reliable as a food source, but probably not much, if any. Local trout rarely exceeded 6" in size, and could only be harvested seasonally in most places. The actual extent of anadromous (including eels) and resident fish use is unknown.

8) Large amounts of commercial-grade weaving materials could be found at all elevations, but beargrass could only be obtained above the 4,000 foot level. Other local plants likely used and traded by Santiam Molalla for weaving purposes include willow, redcedar, bigleaf maple, hazel, flags (wild iris), carex, and bunchgrass. Beargrass was particularly prized as a trade item, but willow baskets or other manufactured goods may have been of greater or equal importance.

9) Woody fuels can be readily found within several minutes walk in almost every part of the study area, and the Santiam Molalla had no trouble finding or stockpiling fuel near residences and camping areas.

10) Freshwater can be found easily in almost all parts of the study area, during all seasons, at most elevations.

11) The mainstem South Santiam River and McKenzie River corridors leading from the Willamette Valley to the Santiam Pass were extremely strategic holdings for the Molalla. The Klamath traded slaves, wokas, and other goods in heavily-used north-south trails through these lands, and much trade and travel from western Oregon to Obsidian Cliffs, Fish Lake and eastern Oregon had to pass through long stretches of narrow, highly visible trails and steep, easily monitored and protected canyons of the Santiam Molalla to reach their destinations.

8. Discussion, Hypotheses & Recommendations

Part 7 of this report summarized the basic findings of research conducted for this project. This concluding portion looks at these data in three ways: 1) how this information can be synthesized to produce a more detailed idea of the life-ways of Santiam Molalla families and communities who lived in the study area from 1750 to 1850; 2) reasonable research questions that can be asked to further refine these findings; and 3) my personal recommendations regarding possible uses of these methods and materials.

Discussion: Owl Ridge Trails Project

Owl Ridge is a key landscape feature of an ancient 250,000-acre or larger camas prairie, berry patch, beargrass meadow, old-growth conifer, summer home, hunting grounds, campground, fishing hole, wetland, beaver marsh, and ridgeline trail complex that dates back millennia before white discovery and occupation. The well-defined patterns of land use, management, and occupation were likely maintained by Santiam Molalla, Blue River Molalla, Santiam Kalapuya, Calapooia Kalapuya, Klamath, Wasco, Paiute, and Cayuse families and communities and their predecessors, ancestors, friends and neighbors for perhaps 2,000 to 3,500 years, or even longer. Today the land is mostly managed by the USDA Forest Service, from the Sweet Home, Sisters, and Blue River Ranger Districts of the Willamette and Deschutes National Forests.

These attractive and highly productive lands drew travelers, hunters, traders, basketweavers, cooks and food gatherers since time immemorial, for extended periods of time in the same places, often with the same families, year after year. Today the land is mostly managed by the USDA Forest Service, from the Sweet Home, Sisters, and Blue River Ranger Districts of the Willamette and Deschutes National Forests.

Camas, willow, and beargrass were harvested daily for weeks on end, in well-known and maintained locations, from May or June through September or October. Firewood was gathered and the camas baked and processed during these months, and in July and August, when the lower elevation berries began to ripen. During this time huckleberries, blackberries, strawberries, thimbleberries, wild cherries, raspberries, blue elderberries, chinquapin nuts, manzanita fruits, salal, Oregon grape, filberts, rose hips, pine nuts, and other fruit, nut, and root crops ripened, and were gathered, eaten, and processed for trade or winter use.

During all of these summer months, elk and deer were routinely hunted, killed, skinned, butchered and prepared into an endless supply of cured hides, jerked meat, and elk-horn and bone utensils. Fish were caught and eaten when available, as were birds, eggs, rabbits, bear, crawdads, boomer, squirrels, and other game. The Molalla had dogs for hunting, companionship, and protection

purposes and used snowshoes during late fall, winter, and spring months to extend their hunting and firewood gathering activities.

In October and November, the fall rains began, salmon entered the rivers and the Molalla could fish or trade for fish from adjacent tribes; in November and December the snows began to push the elk and deer into lower elevations, the males went into rut, the yearlings had become big enough to eat, and whole herds became vulnerable to systematic hunts.

From October to April, the weather is often inclement, and the ground is covered with snow for extended periods. Brakes were burned and harvested for roots and sprouts during these periods, hunting was conducted systematically, cambium bark peeled, and new shoots gathered in the spring. Firewood was gathered when stockpiles ran low, or as opportunity allowed. People mostly stayed near their winter homes or towns, at lower elevations, during these months. Sometime in May, after the snows and bad weather were gone, people began to move back to their summer homes and temporary campgrounds along the river, and at the mouth of Owl Creek, to visit with old friends and acquaintances, hunt, fish, trade, party, and begin digging camas, picking berries, and gathering beargrass on family plots and fields, just as their parents and grandparents had taught.

Questions

This data is intended to be used for educational and resource management purposes. The following questions are examples of the types of uses of this material that can be developed as hypotheses in academic settings for educational or research purposes. Answers to these types of questions can also provide good information for better managing these resources in the future.

1. Some people contend that the Santiam Molalla lived in the western Cascades for thousands of years; others maintain that they were immigrants to the area, and may have arrived as recently as 1820, or somewhat earlier, perhaps 1750 or 1780.

a) If the Molalla only arrived in the western Cascades sometime after 1750, who were the previous occupants? What became of those people, and when did it happen, to allow such free access to the Molallans?

b) If the Molallans have actually lived in the western Cascades for hundreds or thousands of years, what caused them to mostly abandon the once-largely agrarian huckleberry, beargrass, and camas fields throughout the study area? Were their numbers reduced by disease, famine, or warfare? Did they simply develop more efficient methods of survival?

c) How many people, approximately, lived in the study area most of the year in 1750? 1650? 1500? 1200?

2. Conifer tree populations have apparently expanded their range and population densities over the course of the past 300 to 500 years within the study area, a pattern that seems common throughout much of the Douglas-fir Region.

a) If so, is this a function of climate change or some other natural, nonhuman, phenomenon?

b) If so, is this a reflection of changing human populations, market values, resource management methods, politics, or other human-related cause? Are conifer expansions related to human population declines in some way?

3. Huckleberry fields, old-growth trees, ridgeline prairies, brakes and wildflower meadows have all been seemingly reduced in size and numbers during the past 50-250 years.

a) If so, should efforts be made to restore these trees and lands to past conditions? How and why?


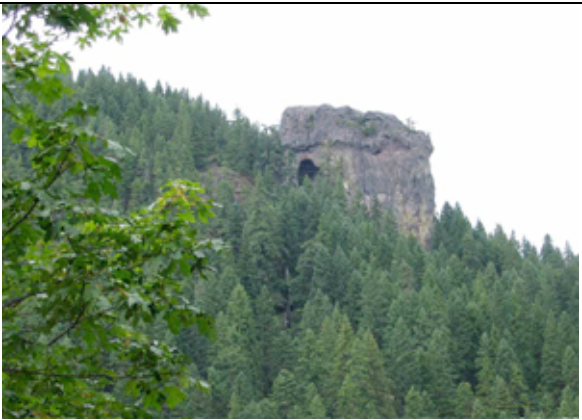




b) Should this be a concern of government, Tribes, or private citizens?

Recommendations

The value of these findings and questions is directly related to the uses to which they are put. The primary purposes for gathering this information was to provide information of cultural, educational, and resource management value to the members of the Confederated Tribes of Grand Ronde. The following recommendations are made with that idea in mind. They are intended for discussion, revision, and/or replacement with better ideas, and are not intended to be comprehensive or exclusionary.

1) Trails Research. Continue and expand this type of ancestral land use research and documentation on the public lands of western Oregon, by partnering with BLM, the US Forest Service, US Fish & Wildlife Service, and/or USDI National Park Service for purposes of funding, information sharing, and collaborative resource management opportunities. Many of the landmarks documented in this work have lost their names, and federal agencies would be the best place to begin assigning traditional Indian names to these features. The same idea holds true for hunting, gathering, and fishing rights and options.

Table 8. Recommendations.

	
<p>Ancient vistas. N. Lapham</p>	<p>Unnamed rocks. N. Lapham</p>
	
<p>Prairie forestation. N. Lapham</p>	<p>Wildfire hazards. N. Lapham</p>
	
<p>Cultural landmarks. D. Lewis</p>	<p>Future generations. B. Zybach</p>

2) GIS Mapping. Field data from this project has already been gathered and transformed into discrete GIS layers by the Grand Ronde mapping department. This data has already been used for a number of useful GIS mapping products, including those used in this report, and maps used for presentation of this material to the Tribal Council. Other possible uses include: a) computerized road maps of the area can be made in which all photographs of intersections, signs, blocked roads, slides, etc., can be displayed, making road navigation much safer and easier than with conventional maps, and making getting lost almost impossible; b) a road and trail map can be made in which all the photographs of fruits, flowers, berries, bulbs, and weaving materials can be shown, and on what dates and in what locations the pictures were taken, for gathering purposes; c) a recreational trail map can be made for hiking, hunting, or spiritual uses, for following the old trails, and visiting the landmarks, and that shows the pictures of these places; d) an educational “virtual tour” of the area in Santiam Molalla time can be made by draping the historical photos and modern trails research over a 3-D “D.E.M.” layer and modifying surface patterns and QTVR panoramas to approximate past times and conditions; and e) an increasingly detailed and accurate archaeological predictive map and cultural resource inventory can be further developed and refined from the base model created for this project.

3) Gordon Meadows Restoration. Gordon Meadows is a secluded camas prairie surrounded by huge 350-year old conifer trees and fields of blue mountain huckleberries and wild strawberries. It is contained in a subbasin of about 2,000-acres that can serve for demonstration and experimental purposes (Anderson 1993; Minore et al. 1979; Carloni 2005). The Santiam headwaters and adjacent subbasins appear to have a remarkable amount of relict cultural landscape patterns remaining from the time of Santiam Molalla ownership and occupation, and from earlier times as well. Most of this area is currently under federal management, with whom formal resource management rights exist with the Confederate Tribes of Grand Ronde. Information resulting from experimental findings and demonstration projects such as this proposal would seemingly be very helpful for future cultural and natural resource management, restoration, interpretation and protection purposes [*NOTE: see Zybach 2008 for additional information on this recommendation.*]

4) Public Education. Information discovered and documented during the course of this research can be put to excellent use for purposes of public education regarding Oregon history, Santiam Molalla life-ways, cultural resources protection, meadow restoration, and a wide range of related topics. Oregon Websites and Watersheds Project, Inc. exists specifically for the purpose of using information of this type for better understanding Oregon’s history, culture, and resource management options and opportunities. Video programs, commercial maps, learning games, and formal curricula would be other types of products that can readily be developed with this data for educational uses.