

Ancient Forest

Socio-economic Benefits of Non-timber Uses of BC's Inland Rainforest
Research Bulletin, August 2013

Over 12,000 visits to Ancient Forest Trail During the 2012 Hiking Season

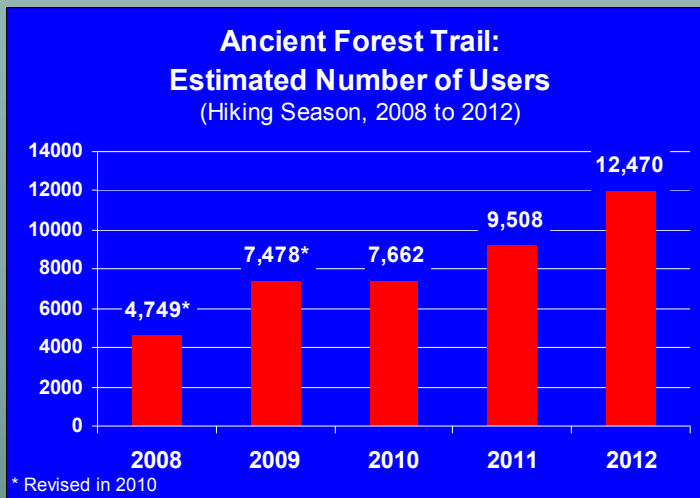
Since its opening in September 2006, the Ancient Forest Trail has become a popular destination for day trips and an enjoyable stop for tourists. During the 2012 hiking season (long weekend in May to Thanksgiving in October) we estimate there were 12,470 visits to the Trail. An increasing proportion of these visitors are tourists, who now account for half of all visitors. On weekends, though, area residents easily outnumber tourists as more and more local people hear about this unique treasure that is close to home. A majority of hikers complete the full loop.

These latest numbers come from research completed by John Hall, a Masters student at the University of Northern British Columbia who is completing his studies under the supervision of Dr. David Connell. John is

studying the potential of the Ancient Forest Trail as an ecotourism attraction to contribute to the area's economic diversification.

During the 2012 hiking season, Hall spent 31 days at the Trail to interview visitors and verify trail counts. He completed 527 surveys that represented 1,738 visitors. Since 2008, researchers have completed 1,073 surveys. As well, since 2008 researchers have been recording trail counts using a passive, heat-sensing counter (manufactured by Carson Electronics in Valemount, BC). The counter is checked throughout the hiking season.

The Ancient Forest Trail is located near Dome Creek, BC, about halfway between Prince George and McBride, with direct access off of Highway 16.



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The purpose of this research bulletin is to communicate the results of on-going research on the socio-economic benefits of non-timber uses of the inland rainforest of the upper Fraser River valley in British Columbia. The information contained in this bulletin may be distributed freely with proper citation, as follows:

Connell, David J. (Editor) 2013. *Socio-economic Benefits of Non-timber Uses of BC's Inland Rainforest: Research Bulletin, August 2013*. Prince George, BC: School of Environmental Planning, University of Northern British Columbia.

For more information about this study please contact Dr. David J. Connell (email: david.connell@unbc.ca; tel.: 250-960-5835).

Universal Boardwalk Provides Full Access for All Users

The Universal Boardwalk, which is part of the Ancient Forest Trail, was built as a wheelchair-accessible trail so that people of all abilities would be able to see the beauty of this unique inland rainforest. Led by the vision of Nowell Senior, a dedicated group of volunteers worked more than 6,000 hours over the past four years to help complete the Boardwalk. In total, \$163,171 were provided in grants, donations, in-kind contributions, and volunteer labour.

	2010	2011	2012	2013*	Total
Boardwalk built (metres)	36.5	73.0	317.0	30.5	457.0
Number of volunteers	35	67	54	27	193
Volunteer hours	528	1,698	2,474	1,343	6,043
Kilometres travelled	8,250	12,676	21,398	10,510	52,834

* To July 14, 2013 Source: Nowell Senior



Laying down the first boards in July, 2010.



Images: D. Connell



Major Sponsors

Recreation Sites and Trails B.C., TD Friends of the Environment Foundation, McBride Community Forest Corporation, Student Planner Association – UNBC-2010, AA Burger Bar, Prince George Community Foundation, Habitat Conservation Trust Foundation, Integris Credit Union, Rotary Club Prince George, Federation of Mountain Clubs B.C., Katimavik, Yellowhead Road and Bridge, Mountain Equipment Coop, Professional Employees Association, Sheila Page, Sheila Fleming, Ric Mlynarczyk.

Study of Forest Values Completed

Jessica Shapiro, MA NRES

The many benefits of the Inland Temperate Rainforest (ITR) have been discovered several times over by First Nations peoples, early European settlers, trappers, loggers, area residents, and outdoor recreationists. Only recently, however, has the ITR been discovered for its ecological and recreational values, especially in the old-growth forests. In this context, understanding the values of different users of the forest ecosystem is important to consider. The purpose of my research was to document the breadth of forest values surrounding the ancient cedar stands to gain a better understanding of the significance of this globally unique forest.

To complete my research I interviewed thirty-four local residents, analysed three years of guestbook comments from the Ancient Forest Trail, and compiled twenty-one media pieces reporting on the forest and the ancient cedar trees. The data from these sources revealed rich and varied perspectives of the old-growth forest values of trail users, the public, and local residents.

The results tell a story about the widening breadth of non-material forest values, the factors that come to influence those values, and the role conflicting values play in the debate surrounding the ancient cedar stands.

The story begins by recognizing that people are part of forest ecosystems; they derive material and non-material services from them, they live, work, and play in forests, and their social values, behaviour, and knowledge of forest ecosystems affect them in both direct and indirect ways. At the same time, forests are valued differently by people with different relationships to the forest. For example, people living within a forest often value the environment for its life-support qualities; people working in the forest who are dependent on the timber industry value it for its economic potential; tourists often value a forest for its

recreational opportunities; scientists studying a forest are sometimes captured by its rarity or uniqueness.

The story reveals a wide breadth of values surrounding the ancient cedar stands including material values economic in nature, life-support values beneficial to all species, and an equal breadth of non-material values represented through aesthetic, socio-cultural, spiritual, and ethical value categories. Sources of values among the three study populations (trail users, the public, and residents) stemmed from anthropocentric, biocentric, and religious/spiritual influences. Some values received unanimous endorsement from respondents, such as air-purifying and beauty, exemplifying common concerns among different groups of people.

It has become apparent through this research that the timber value, which has historically been the primary indicator of a forest's worth, is not the only useful indicator for management decisions; exploring all held values, such as has been done in this study, informs the highest and best uses of forest ecosystems. The potential for conflict between timber and tourism, cedar products, and inherent worth values such as age and rarity of trees can also produce valuable insights into the debate between conserving and harvesting the old-growth forests.

Documenting the expressed held forest values allows land use planners and natural resource managers to understand better what values individuals and groups assign forest practices. In this way, insights from this study's results can be used to discuss future implications of held forest values on ecosystem management and policy decisions surrounding ancient cedar stands in the inland rainforest.



Jessica Shapiro completing household surveys

Research Sparks Interest in Protection

The scientific understanding of BC's inland temperate rainforest has increased substantially over the past ten years. Today, this new understanding of the rainforest and its ecological significance as a globally unique ecosystem has sparked greater interest in protecting the land base from industrial development.

Extending Slim Creek Provincial Park

With regard for the Ancient Cedar stands of the inland temperate rainforest, Coxson, Goward, and Connell (2012, p. 10) asked, "What options would be available were the provincial government to consider protecting the most important of these stands using provincial park legislation?" In answering this question the primary concern is to secure appropriate levels of protection from development for core areas that have exceptional biodiversity and important ecosystem services.

For the Ancient Cedar stands there are three critical factors to consider. (1) Protecting upslope hydrological processes and slope seepage is important to feed the cedars throughout the year with water and nutrients while also reducing the risk of stand-destroying fire. (2) In addition to the vicinity of the Ancient Forest Trail protecting additional major redcedar groves would provide protection for genetic diversity in the face of projected climate change impacts. As well, (3) extending the boundary to the Fraser River would protect the entire watershed on Driscoll Ridge to the bottom of the valley.

With these factors in mind Coxson, Goward, and Connell presented three scenarios based on extending the boundaries of the Slim Creek Provincial Park. The three scenarios move from the least to most restrictive land base with corresponding levels of increased protection. Scenario 1 focusses on the core area of Ancient Cedar stands in the vicinity of the Ancient Forest trail. Scenario 2 adds to the first option by including subalpine forests and alpine areas above the Ancient Cedar stands to the height of land on Driscoll Ridge. This scenario also extends the proposed boundary westward to include several other major redcedar groves. Scenario 3 additionally extends the boundaries downward to include the entire watershed on Driscoll Ridge to the bottom of the valley.

As the authors state, "These scenarios will inform local communities, First Nations, land use planners, and delegated decision makers alike, as they consider options for the future sustainability of landscapes in the upper Fraser River watershed" (p. 10). The choice among the scenarios would require a decision that seeks to balance timber production with the social and ecological values of the Ancient Cedar stands.

UNESCO World Heritage Site

Dr. Darwyn Coxson, a biologist at UNBC, is a strong advocate for designating the Ancient Cedar stands as a United Nations Educational, Scientific and Cultural Organization World Heritage site. The purpose of this kind of designation is to ensure the proper identification, protection, conservation, and presentation of the world's heritage (UNESCO 2012).

To be included on the World Heritage List, sites must be of outstanding universal value and meet at least one out of ten selection criteria. Of these criteria the most relevant for the stands of Ancient Cedars is "to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation" (UNESCO 2012, p. 21). Such world-class designation is reasonable in relation to other rainforests. As Coxson explained, "There is much precedence to point to of ancient coastal rainforests being named World Heritage Sites, such as Haida Gwaii in BC, and Olympic National Park in Washington State, but in many scientific and cultural respects, the Ancient Forest is of even more value due to its extremely rare location so far north and so far inland" (UNBC 2013).

D.S. Coxson, T. Goward, & D.J. Connell. 2012. Analysis of Ancient Western Redcedar Stands in the Upper Fraser River Watershed and Scenarios for Protection. *Journal of Ecosystems and Management* 13(3):1-20. <http://jem.forrex.org/index.php/jem/article/viewFile/206/479>

UNBC 2013. UNBC Study Recommends Northern BC's 'Ancient Forest' be named a World Heritage Site. Media release, March 1, 2013. Available at <http://www.unbc.ca/releases/7909/ancient-forest>. Accessed July 25, 2013.

UNESCO 2012. Operational Guidelines for the Implementation of the World Heritage Convention. World Heritage Centre. Available at <http://whc.unesco.org/archive/opguide12-en.pdf>. Accessed July 25, 2013.